SUSTAINABILITY FUTURE GROWTH	**TANAP** **TRANS ANATOLIAN NATURAL GAS PIPELINE PROJECT**	TANAP

IESCs Site Visit Report June 2019

Rev	Status	Date	Status Description	Issued by	Checked by	Approved by	TANAP Approval
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HOLDS

No.	Section	Description	Input From	Planned Date

Acronyms and Abbreviations

AGI	Above-Ground Installation
BAP	Biodiversity Action Plan
BAT	Best Available Technology
bcma	billion cubic meters per annum
BTC	Baku-Tbilisi-Ceyhan
CAP	Corrective Action Plan
CC	Construction Contractor
CST	Compressor Station
ERP	Emergency Response Plan
CFC	Chlorofluorocarbon
CHMP	Cultural Heritage Management Plan
CHSS	Community, Health, Safety, and Security
ESDD	Environmental and Social Due Diligence
EBRD	European Bank for Reconstruction and Development
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPs	Equator Principles
ERMP	Employee Relations Management Plan
ES	Environmental and Social
ESAP	Environmental and Social Action Plan
ESHS	Environmental, Social, and Health and Safety
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESR	Environmental and Social Review
EU	European Union
GHG	Greenhouse Gas

GIP	Good International Practice
H&S	Health and Safety
HR	Human Resource
HSES	Health, Safety, Environmental and Social
HSE	Health, Safety and Environmental
IBA	Important Bird Area
IESC	Independent Environmental and Social Consultant
IFC	International Finance Corporation
ILO	International Labour Organisation
IP	Indigenous Peoples
JV	Joint Venture
KBA	Key Bird Area
KPI	Key Performance Indicator
MoEU	Ministry of Environment and Urbanisation
MP	Management Plan
MSDS	Material Safety Data Sheet
NCR	Non-Conformance Report
NGO	Non-Governmental Organisation
NO_2	Nitrogen Dioxide
OHS	Occupational, Health and Safety
OMS	Operating Management System
OSID	Online Stakeholder Interaction Database
PAHs	Polycyclic Aromatic Hydrocarbons
PAP	Project-Affected Person
PPE	Personal Protective Equipment
PS	Performance Standard
PR	Performance Requirement
RAP	Resettlement Action Plan
SCP	Southern Caucasus Pipeline
SCPx	South Caucasus Pipeline Expansion Project

SD	Shah Deniz
SEP	Stakeholder Engagement Plan
SMP	Social Management Plan
SOP	Standard Operating Procedure
SPS	Safeguard Policy Statement
Sustainability	Sustainability Pty Ltd
TAP	Trans Adriatic Pipeline
TANAP	Trans Anatolian Pipeline
TSP	Total Suspended Particle
VOC	Volatile organic compounds

CONTENTS

Executive Summary

TANAP Doğalgaz İletim A.Ş.(TANAP) has engaged Sustainability Pty Ltd (Sustainability) for the delivery of Independent Environmental, Social, Occupational Health and Safety Monitoring and Consultant Services (IESCS) for the Trans Anatolian Natural Gas Pipeline (the Project), effective of 24 July 2018. The scope of the IESCS activities is specific to Phase 1 construction works and for operation phase(s) of Phase 0 and Phase 1. The services include an independent assessment of the Project's compliance with relevant local and international legal requirements, the various Lender requirements and commitments given in the ESIA package including the management system documents of both TANAP and its Contractors. The services include the presentation of recommended actions associated with identified non-compliances or areas of improvement. A summary of the recommendations is provided in Table 1 below.

Sustainability completed the second site visit in accordance with the IESC's agreed Project Execution Plan from 13th – 17th May 2019. The visit focussed on the Project's environmental, occupational health, safety and social performance during commissioning and operations phase activities at AGIs and verification of RoW reinstatement including critical habitat bio restoration. The IESC identified 7 areas of partial compliance, 7 observational findings and no material non-compliances were identified.

The IESC has determined that the Project continues to exhibit ubiquitous robust environmental and social performance. As the Project continues to transition into the operational phase, it is expected that the high standards of HSSE performance that have been achieved to date continue whilst ensuring adequate internal and Contractor resources are available to continue to deliver and implement Project and Lender commitments. On-going third party environmental and social monitoring will pass from Çinar to ENVY at the end of 2019 to ensure that Turkish regulatory requirements and Lender standards continue to be met.

There is a continued focus by TANAP on operational readiness and handover of assets from the construction phase to operations. Existing management systems are being utilised as a basis for transition to the operations and the QHSSE team on the Project are assisting with this transition. The change to operations will be a key focus of the next IESC visit in November 2019.

Environmental Summary

During this site visit, the IESC observed a very high standard of reinstatement at all kilometre points visited in Lot 4. However, ongoing concerns raised by TANAP include the alignment of reinstatement and aftercare monitoring across all Lots. An emergency repair contract for major repairs that are not the responsibility of the EPC Contractors was awarded on 29 May 2019 but TANAP must continue to work closely with Contractors to ensure that during their warranty period, reinstatement quality issues are identified through monitoring and any defects are repaired in a timeframe that is commensurate with the risks.

The IESC observed excellent use of drip trays where needed to contain any spills of fuels or oils. Spill kits were provided where required at all sites visited and were adequately and appropriately stocked. Topsoil storage was observed to be generally well managed – clearly labelled as topsoil, covered and seeded to prevent erosion, barricaded for protection from vehicle encroachment / disturbance. However, a topsoil stockpile at the DSW site was observed to have been highly compacted (and likely to result in anaerobic conditions). TANAP should work with the Contractor PLK to ensure that the requirements of the Erosion, Reinstatement and Landscaping Plan with regard to Topsoil Management are being consistently met. At all of the sites visited the IESC observed an on-going and consistent trend of poor use of the 'at source' waste segregation bins, despite the majority of bins being labelled for a given waste stream (plastic, paper, domestic, glass etc.). The lack of improvement in performance relating to this issue, which has been raised

on the two previous IESC site visits, demonstrates that achieving a change in workers' behaviour is likely to require an even more targeted approach, with increased levels of oversight.

Biodiversity Summary

Impact of OHLS and Anode-Bed on birds

The environmental and social assessment of the overhead lines and anode bed-lines (dated 14.03.2019) was updated to include impacts and risks to priority biodiversity features and critical habitats and specifically to bird migration routes.

Based on the findings of Çinar's bird monitoring report, TANAP will reassess the necessity for mitigation measures and further monitoring requirements for birds. This report was not available for review at the time of the audit.

Biorestoration and Reforestation had not commenced in Lot 4 so this was not assessed during the site visit.

Implementation of the Mitigation Hierarchy in Critical Habitat

Based on the five Critical Habitat (CH) sites visited, the IESC was satisfied that TANAP, and its Contractors, had undertaken the requisite specialist studies and obtained appropriate professional advice during pre-construction and construction to avoid impacts on CH triggering species. The IESC was convinced that BAP mitigations were included in construction scheduling and planning. Where construction took place during a restriction period the rationale was well justified by professional experts. The IESC was satisfied that experts with the appropriate regional experience were retained on site to monitor construction activities and assist in the development and implementation of the mitigation hierarchy where necessary.

Biodiversity Offset Planning and implementation

The IESC has reviewed and is satisfied with the progress in development of the Biodiversity Offset Management Plan (BOMP) being completed by the Project's biodiversity specialist consultant team engaged by TANAP in 2017.

The December 2018 Quarterly Report focused on continued refinement of the baseline value of degradation and the rehabilitation success. Potential offset sites were screened according to principles outlined in the Biodiversity Offset Strategy (BOS) to provide a short-list of potential sites and these sites were then ranked according to four criteria identified in the BOS.

The March 2019 Quarterly Report described continued progress on previous on-going activities in addition to focusing on assessing habitat suitability for the SCC and defining final net loss calculations for 2019 Project activity implementation only. Offset opportunities were identified and habitat mapping of the 12 top-ranking potential offset sites was undertaken.

During a stakeholder workshop held in April 2019, five potential NGO implementation partners were selected. These NGOs then identified 13 potential offset implementation activities to be undertaken in 2019 and defined their associated parametric costs.

IESC considers the scheduling and procedure for biodiversity offset implementation to be on track and in accordance with the requirements of PS6.

Budget allocation for biorestoration monitoring and maintenance and biodiversity offset implementation

ESAP Item 1.2 requires provision of a cost estimate for the operational phase Biorestoration monitoring and maintenance sufficient for the length of the pipeline corridor and to ensure sufficient contingency budget allocations for any newly identified biodiversity remedial and offset activities.

There are separate Contracts designed to deal with the activities stated within this item.

Mainly, Contractors have the responsibility of "aftercare and monitoring" during the 2 years contractual maintenance period. In addition, as a preparation to operations phase, "ROW Restoration, Vegetation, Maintenance Management and Snow Removal Services" Contract was assigned, under which bio-restoration monitoring (as ROW patrolling) and minor maintenance requirements will be managed. During 2018 visit, the estimated costs were shared with IESC and deemed sufficient. These costs were not reviewed again during the May 2019 visit.

A cost was allocated under the Ecological Monitoring section of the Contract of "Environmental Third-Party Monitoring and Consultancy Services during Operation Phase". The IESC was provided with the Annual Ecological Monitoring Price Table developed by ENVY. The IESC considers the vegetation cover and density and flora monitoring and aquatic fauna monitoring costs to be low compared to the terrestrial fauna monitoring costs allocated per year. If additional contingency costs are required, currently not covered by the contract, there is a contractual mechanism that can be used for change orders.

The Biodiversity Offset Management Plan is being prepared and will be completed at the end of 2019. However, TANAP, who is willing to start the offset Projects this year, allocated an amount of $500,000.00 for the start-up of some of the offset Projects in 2019. The proposed activities for quarter 2,3,4 of 2019 include: (a) preliminary habitat mapping studies, b) targeted species surveys on the potential offset sites to assess their suitability for offsetting residual impacts and c) on-going consultation with national and regional stakeholders). Based on the IESC's understanding that the proposals cover three forest and three steppe habitat projects the IESC considers the budget adequate. Additional budget for studies to be undertaken in the remaining habitats comprising potential offset sites will be allocated for 2020 onwards once the BOMP is finalised in 2019.

Occupational Health and Safety Summary

The IESC observed good general compliance to occupational health and safety (OH&S) requirements and TANAP standards across all the sites visited with work observed being conducted safely and with the necessary controls in place. Where minor OH&S issues were observed, they were rectified immediately or within a very short timeframe with evidence provided to the IESC. Chemical storage remains a concern to the IESC following partial compliances identified at the CS5 site:

- Inconsistent chemical compatibility assessments for storage locations
- Non-compatible chemicals stored together
- Outdated MSDSs

A concern to the IESC is that this is a repeat finding from the last assessment.

The IESC raise an observation that the use of Project OH&S to provide oversight to the Operations can put stress on the Project OH&S team, as the Project continues to require the full attention of the Project OH&S team especially at this stage of commissioning, handover and demobilisation.

The IESC raised an observation that isolation and lockout observed was in compliance with TNP-PCD-GEN-002 Lock-out & Tag-out Requirements and TNP-PCD-HSM-GEN-037 Energy Isolation Procedure but was not best practice. Best practice is for all people working on an isolation to use personal locks. Whilst being

found fully compliant with the Procedure implemented by the Project, an opportunity for improvement to consider the use of personal isolation locks has been suggested.

The IESC commend the "Commissioning Task Force for Health and Safety" as well as the QHSSE lessons learnt as good initiatives and examples of best practice.

Social Summary

Evidence presented to the IESC indicates labour management practices are in line with Project requirements. Demobilisation continues while the bulk of the remaining workforce is now completing construction at AGIs and Lot 4. Another 6,866 workers were demobilised since October 2018 and monitoring by third party Çinar of the implementation of Retrenchment Management Plan, plus ongoing implementation of the worker grievance mechanism by TANAP and Contractors, have been effective in identifying, tracking and closing out any issues with the retrenchment process.

Oversight by TANAP and third parties continues to work effectively to identify and respond to any issues associated with worker payments and overtime; a small number of issues have been identified with subcontractor's performance. The IESC is satisfied these are also being picked up and addressed in line with Project commitments.

TANAP has commissioned consultants to develop an emergency response plan for directly affected communities. This will assess risks to communities from operations, as well as assess capacity of response agencies and opportunities for their targeted capacity development, where this may be required.

Engagement with affected communities targeted to land acquisition, resettlement and livelihood restoration continues. Interviews during the visit with Project Affected People (PAPs) indicate good working relationships with the Project, for which the IESC commends staff. Additional guidance documents and procedures have been prepared/updated in line with Project needs, such as on multiple pipeline affected people, as per Resettlement Action Plan (RAP) commitments. Concerted effort has been maintained to deliver RAP Fund payments since the previous visit and transitional support payments have enabled greater access to entitlements for affected stakeholders previously lacking documented evidence of land title.

There are 133 households eligible for livelihood restoration measures and 96% of these have received their entitlements. These efforts, plus those to reach vulnerable people and ensure women's participation in designing community-based livelihood and social support options, are noted by the IESC.

Monitoring efforts of social performance are ongoing. The RAP Monitoring Plan is key to being able to close out compliance with Project commitments on land acquisition and livelihood restoration. Updating this Plan and ensuring the RAP Completion Audit scope of work is aligned, will be key to a meaningful RAP completion process.

Lastly, TANAP is commended for continuing to raise awareness on Turkey's rich cultural heritage. Interpretation materials displays and licenced replicas, as well as academic literature and presentations, are all tools which the Project has used to share cultural heritage finds from the Project with a wider audience.

Table 1 Recommendations

ID #	Monitoring Exercise Date	Closing Date	Description	Compliance Category	Ref.	Status	Comments / Report Reference
Environmental and Social Assessment and Management System							
1.17	13th – 17th May 2019		**Organisational Capacity and Competency** Whilst this has been found to be fully compliant an observation has been made as follows: It is recommended that TANAP review the use of Project OH&S to provide oversight to the Operations as this can put stress on the Project OH&S team especially at this stage of commissioning, handover and demobilisation. The use of Project OH&S resources to oversee both project and operational OH&S requirements could result in a loss of focus by the team on Project issues at this critical stage in the Project.	**FC**	IFC PS1	Open	Appendix A IFC PS assessment table
1.20	13th – 17th May 2019		**Emergency Response and Preparedness** Complete preparation of the emergency response plan for directly affected communities.	**PC**	IFC PS1	Open	Appendix A IFC PS assessment table
1.22	13th – 17th May 2019		**Monitoring and Review** Whilst this has been found to be fully compliant an observation has been made as follows:	**FC**	IFC PS1	Open	Appendix A IFC PS assessment table

ID #	Monitoring Exercise Date	Closing Date	Description	Compliance Category	Ref.	Status	Comments / Report Reference
			TANAP must continue to work closely with Contractors to ensure that any reinstatement defects that are identified through the third party or Contractor monitoring process are repaired in a timeframe that is commensurate with the risks. Particular attention should be given to reinstating overspill areas.				
1.26	13th – 17th May 2019		**Stakeholder engagement** This IFC PS was fully compliant, however this is only an observation: There is a need to maintain efforts in stakeholder engagement (SE) and information disclosure (ID). The Project construction is nearing completion, however impacts are ongoing in active work areas. The Project's SE and ID needs to continue to respond to stakeholders, as well as Project, needs.	**FC**	IFC PS1	Open	Appendix A IFC PS assessment table
1.34	13th – 17th May 2019		**External Communications and Grievance Mechanisms** This IFC PS was fully compliant, however this is only an observation. IT systems need to remain accessible during the transition into operations, including OSID for stakeholder engagement and grievance management.	**FC**	IFC PS1	Open	Appendix A IFC PS assessment table
1.5	13th – 17th May 2019		**Environmental and Social Assessment and Management System**	**PC**	IFC PS1	Open	Appendix A IFC PS assessment table

ID #	Monitoring Exercise Date	Closing Date	Description	Compliance Category	Ref.	Status	Comments / Report Reference
			Based on the findings of Çinar's bird monitoring report, TANAP are recommended to reassess the necessity for mitigation measures and further monitoring requirements for birds.				
Labour and Working Conditions							
2.23	13th – 17th May 2019		It is recommended that TANAP undertake chemical storage compliance assessments across all sites to ensure: • chemical compatibility assessments for storage locations • Only compatible chemicals are stored together • MSDSs are in date and in Turkish	**PC**	IFC PS2	Open	Appendix A IFC PS assessment table
Resource Efficiency and Pollution Prevention							
3.10	13th – 17th May 2019		**Topsoil Management** Whilst this has been found to be fully compliant an observation for topsoil management has been made as follows: At the DSW site, the IESC observed a topsoil stockpile that was highly compacted (and likely to result in anaerobic conditions and unlabelled. This is not in alignment with the requirements of the Erosion, Reinstatement and Landscaping Plan. It is recommended that TANAP works with PLK to ensure that the necessary actions are taken to restore the condition of this topsoil to its original state and consideration should be given to protecting the soil from erosion by the use of covers given the windy conditions at this site.	**FC**	IFC PS3	Open	Appendix A (IFC PS Assessment Table)

ID #	Monitoring Exercise Date	Closing Date	Description	Compliance Category	Ref.	Status	Comments / Report Reference
3.12	13th – 17th May 2019		**Hazardous and non-hazardous waste management** The lack of improvement in performance relating to the use of 'at source' segregation waste bins demonstrates that achieving a change in worker's behaviour is likely to require an even more targeted approach, with increased levels of oversight. It is recommended that TANAP/Contractors consider appointing individual workers with waste monitoring responsibilities, who could on a rotational basis be stationed near to waste bins to ensure their correct use. At the DSW site it is recommended that all waste bins either have lids or are placed within containers and that regular clean up exercises (at least weekly) are implemented to pick up any loose windblown waste across and around the site.	**PC**	IFC PS3	Open	Appendix A (IFC PS Assessment Table)
3.13	13th – 17th May 2019		**Pollution Prevention** It is recommended that a concrete bund is placed around the relevant area within the MS2 Central Waste Storage Area to contain any leaks or spills from containers being stored there that contain waste filter separation water. It is recommended that stock levels (especially of anti-freeze) are managed to ensure there is adequate storage space for all hazardous substances within an appropriately protected area of the site at MS4.	**PC**	IFC PS3	Open	Appendix A (IFC PS Assessment Table)

ID #	Monitoring Exercise Date	Closing Date	Description	Compliance Category	Ref.	Status	Comments / Report Reference
Community Health, Safety and Security							
4.11	13th – 17th May 2019		**Emergency preparedness and response requirements (communities)** Complete preparation of the emergency response plan for directly affected communities.	**PC**	IFC PS4	Open	Appendix A (IFC PS Assessment Table)
Land Acquisition and Involuntary Resettlement							
5.10	13th – 17th May 2019		**General** Whilst being found fully compliant the following observation has been made: TANAP to ensure consistency in application of the land exit process between Lots, and Lot 4 benefit from the lessons learned in Lots 1-3. TANAP described that shifting of experienced TANAP Social Specialists into Lot 4 has enabled implementation of some of the earlier lessons.	**FC**	IFC PS5	Open	Appendix A (IFC PS Assessment Table)
5.13	13th – 17th May 2019		**General** This IFC PS was fully compliant, however this is only an observation. The IESC recommends that the RAP Monitoring Plan is revised and the SOW checked that it aligns with outcome / output indicators prior to tendering the Completion Audit.	**FC**	IFC PS5	Open	Appendix A (IFC PS Assessment Table)
Biodiversity Conservation and Sustainable Management of Living Natural Resources							

ID #	Monitoring Exercise Date	Closing Date	Description	Compliance Category	Ref.	Status	Comments / Report Reference
6.7	13th – 17th May 2019		**LOT 4 Biorestoration & reforestation recommendation:** TANAP has not yet commenced biorestoration or reforestation in LOT 4; the majority of plans are in the process of being developed and approved. However, the Aftercare Plan still needs to be developed by Contractor and approved by TANAP. It is recommended that this is developed and submitted for approval in a timely fashion in accordance with the biorestoration/reforestation schedule. **OHL and anode bedlines recommendation:** The ESIA on OHLS and Anode Bed-lines has been updated to include impacts on bird species and Çinar has been contracted to undertake bird monitoring at areas where impacts are likely to occur. It is recommended that OHL mitigations and additional monitoring be implemented based on the findings of Çinar's bird monitoring report.	**PC**	IFC PS6	Open	Appendix A IFC PS assessment table

1. INTRODUCTION

TANAP Doğalgaz İletim A.Ş.(TANAP) has engaged Sustainability Pty Ltd (Sustainability) for the delivery of Independent Environmental, Social, Occupational Health and Safety Monitoring and Consultant Services (IESCS) for the Trans Anatolian Natural Gas Pipeline (the Project), effective of 24 July 2018. The first IESCS monitoring visit undertaken for this assignment occurred in Turkey from 8-12 October 2018. This report presents the findings of the second monitoring visit of the assignment which occurred in Turkey from 13th to 17th May 2019. Sustainability had previously been engaged by the EBRD as the Independent Environmental and Social Consultant to support financing requirements and had completed an environmental and social due diligence in 2016 and monitoring visits in 2017 and in June 2018.

The TANAP Project involves a 1,850km pipeline to facilitate the transport of natural gas produced from the Shah Deniz Phase II development in Azerbaijan to Turkey and Europe. The Project is being developed by a group of shareholders who currently comprise of Southern Gas Corridor Closed Stock Joint Company (58%), BOTAS (30%) and BP (12%) and are herein referred to collectively as the "Sponsors".

The Project runs from the Georgian border, beginning in the Turkish village of Türkgözü in the Posof district of Ardahan, passes through 20 provinces, ending at the Greek border in the İpsala district of Edirne. Two off-take stations are located within Turkey for national natural gas transmission, one located in Eskişehir and the other in Thrace. With 19km running under the Sea of Marmara, the main pipeline within Turkey reaches a total of 1,850km, along with off-take stations and above-ground installations.

TANAP is being developed in phases, as defined below. It is currently nearing completion of Phase 1 construction.

- Phase 0: Initial phase of operation, 6bcma capacity of Shah Deniz 2 was delivered to BOTAS in mid-2018 through the 56" pipeline section through the Eskisehir Off-take. No gas will be delivered to Thrace or Greece. Mechanical completion of Phase 0 was completed in Q4 2017. The Project has completed the Phase 0 construction works.
- Phase 1: To meet the throughput pf 16bcma, sized to transport the production capacity of Shah Deniz 2 by 2019 to BOTAS and TAP, the operation of 48" section of the onshore pipeline and the two compressor stations (CS-1 and CS-5) will be required. The Project is nearing completion of Phase 1 (which is 98.7% complete at the time of the site visit).
- Phase 2: To meet the throughput of 24bcma by 2023, upgrading of the Phase 1 compressor stations is required and an additional 2 compressor stations are needed to meet 24bcma flow requirements.
- Phase 3: To meet throughput of 31bcma by 2026, upgrading of the Phase 1 and Phase 2 compressor stations is required and an additional 3 compressor stations are needed to meet 31bcma requirements.

1.1 Scope of the Monitoring

The scope of the IESCS activities is specific to Phase 1 construction works and for operation phase(s) of Phase 0 and Phase 1. The services require an independent assessment of the Project's compliance with relevant local and international legal requirements, the various environmental and social requirements of the International Financial Institutions (IFIs), TANAP policies and the commitments given in the ESIA package including the management system documents of both TANAP and its Contractors. The services

include the presentation of recommended actions associated with identified non-compliances or areas of improvement.

The key objectives are to:

- Provide an independent assessment of the Project's compliance with Project commitments, including relevant local and international legal requirements and IFIs' Standards, Requirements, Guidelines; and
- Present recommended actions associated with identified non-compliances or areas of improvement.
- To achieve these objectives, the IESC undertakes the role of identifying, monitoring and verifying:
- The implementation of specific provisions, commitments and the overall objectives of the Project ESIA, BAP, BOS, SEP, RAPs-LRPs and other related Project documents;
- Implementation of mitigation measures, as documented in the Commitments Register, Environmental and Social Management Plans, Health and Safety Plans and relevant procedures to address material risks and issues associated with Phase 1 construction works and operations;
- Material changes in design and operations, which have been issued and assessed in line with the Environmental Management of Change Procedure (TNP-PCD-ENV-GEN-002); and
- The implementation of Legal, Political and Institutional framework as presented in Chapter 4 of ESIA Report (TNP-REP-ENV-GEN-002) considering the current updates and relevant IFIs' Standards, Requirements and Guidelines.

1.2 Summary Project Description

1.2.1 Project Status

At the time of the Monitoring visit (13th – 17th May 2019), the construction phase (Phase 0) of the Project was complete in Lots 1-3 and associated AGIs (Above Ground Installations). Construction activities were ongoing in Lot 4 and associated AGIs (Phase 1) which are planned to transition to the operational phase in June 2019.

A summary of milestone events is outlined below:

Phase 0

- 1340km of 56" pipeline completed
- 39 Block Valve Stations (BVS) completed
- 6 Pig Stations (PS) completed
- 2 Metering Stations (MS) completed
- 1 Offtake Compressor Station (CST)

Phase 1

- 462km of 48" pipeline completed
- 10 Block Valve Stations completed
- 4 Pig Stations completed
- Phase 1 pipeline linefill activities started on 15 April 2019 and ongoing in line with the schedule
- 2 Metering Stations ongoing
- 2 Compressor Stations ongoing
- Offshore Pipeline Construction
    - 17.6km of 2 parallel 36" offshore pipelines completed
    - 4 Fiber Optic Cables completed
    - 24 Crossing completed

Reinstatement progress on the ROW at the time of the site visit is outlined in Table 2 below.

Table 2 Reinstatement Update (as of April 2019)

Reinstatement Process	Lot 1	Lot 2	Lot 3	Lot 4
Clean up	100%	100%	100%	100%
Re-contouring	100%	100%	100%	98%
Topsoil replacement including erosion control measures	100%	100%	100%	83%
Bio-restoration	100%	100%	100%	0%

1.3 Applicable Project Standards

International Lender financed Projects are expected to be designed and operated in compliance with good international practices relating to sustainable development. TANAP adhere to relevant IFIs' Standards, Requirements and Guidelines including:

IFC Performance Standards (2012)

- Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts;
- Performance Standard 2: Labour and Working Conditions;
- Performance Standard 3: Resource Efficiency and Pollution Prevention;
- Performance Standard 4: Community Health, Safety, and Security;
- Performance Standard 5: Land Acquisition and Involuntary Resettlement;

- Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; and
- Performance Standard 8: Cultural Heritage.

IFC Environmental, Health and Safety (EHS) Guidelines, including EHS General Guidelines (2007)

EBRD Environmental and Social Policy and Performance Requirements (2014)

- PR1 – Assessment and Management of Environmental and Social Impacts and Issues;
- PR2 – Labour and working condition;
- PR3 – Resource Efficiency, Pollution prevention and Control;
- PR4 – Health and safety;
- PR5 – Land acquisition, involuntary resettlement and economic displacement;
- PR6 – Biodiversity conservation and sustainable management of living resources;
- PR8 – Cultural heritage; and
- PR10 – Information disclosure and stakeholder engagement.

World Bank Safeguard Policies

- OP 4.01 Environmental Assessment;
- OP 4.04 Natural Habitats;
- OP 4.09 Pest Management;
- OP 4.36 Forestry;
- OP 4.11 Physical Cultural Resources; and
- OP 4.12 Involuntary Resettlement.

Equator Principles (2013)

- Principle 1: Review and Categorisation;
- Principle 2: Environmental and Social Assessment;
- Principle 3: Applicable Environmental and Social Standards;
- Principle 4: Environmental and Social Management System and Equator Principles Action Plan;
- Principle 5: Stakeholder Engagement;
- Principle 6: Grievance Mechanism;
- Principle 7: Independent Review;
- Principle 8: Covenants;

- Principle 9: Independent Monitoring and Reporting; and
- Principle 10: Reporting and Transparency.

MIGA Policy on Environmental and Social Sustainability (2013)

- Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts;
- Performance Standard 2: Labour and Working Conditions;
- Performance Standard 3: Resource Efficiency and Pollution Prevention;
- Performance Standard 4: Community Health, Safety, and Security;
- Performance Standard 5: Land Acquisition and Involuntary Resettlement;
- Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; and
- Performance Standard 8: Cultural Heritage.

1.4 Sources of Information

The IESCS included a document review component with key documents being supplied by TANAP prior to the site visit in response to a request form Sustainability. Further documentation was provided during and immediately following the site visit as requested by the IESC team to allow clarification and verification of the site visit findings. The primary sources for information accessed for this IESCS review included, but was not limited to:

- Project ESIAs produced for the Project including the information prepared for the trans-boundary notification and consultation;
- Supplementary environmental and social assessments undertaken in accordance with Project management of change processes;
- Construction and Operational Phase Environmental and Social Management Plans (ESMPs) and relevant additional specific plans including the Stakeholder Engagement Plan (SEP);
- Other relevant HSES materials including HSE statistics, incident reports, external monitoring reports and audits, surveys, grievance registers and additional assessments;
- Environmental and social monitoring reports completed by Construction Contractors, third party monitoring service providers and TANAP;
- Information regarding Project progress and performance in the public media including newspaper articles, TANAP website and information published from stakeholders;
- Information from site inspections and interviews with TANAP personnel, Contractors and stakeholders; and

- Relevant Land Acquisition and Compensation (LAC) and Resettlement Action Plan (RAP) documentation and Grievance Mechanism.

1.5 Monitoring Site Visit Attendance

The site visit was conducted from the 13th to the 17th October 2019 by the Independent Consultant team, and EBRD. The team members included:

- Heath Thorpe: Independent Consultant Team Project Director and Lead Environment and OHS Specialist;
- Claire Penny: Independent Consultant Team Environmental Specialist;
- Rowena Smuts: Independent Consultant Team Biodiversity Specialist;
- Amy Sexton: Independent Consultant Team Social, labour and Cultural Heritage Specialist; and
- Bossan Annayeva: EBRD Senior Environmental Adviser.

1.6 Monitoring Site Visit Itinerary

In summary, the following activities were undertaken, and locations were visited:

Day 1. 13th May 2019

TANAP Head office in Ankara

- Opening meeting with TANAP Management
- Meeting with TANAP on Overall progress of the Project
- Meeting with TANAP HR team for HR management/oversight for contactors and TANAP operational labour discussions
- Meeting with TANAP HS team
- Meeting with TANAP Environmental Team
- Meeting with TANAP Social Team including RAP, LRP etc.
- Meeting with TANAP Land Acquisition Team

MS2 & CS5

- Opening meeting and HSE inductions
- Meeting with Construction and Environment Team including visit to Lot 4 KP 1369 CH 58
- Meeting with Social Team and visit to AGI affected settlement for LRP implementation and Muhtar interview
- CS5 Camp site visit and worker interviews

Day 2. 14th May 2019 – Lot 4

- Meeting with Environment Team and Construction Team including visit of construction activities
- Visit reinstatement, biorestoration and CH areas (CH 64 & 65)
- Meeting with Social Team including visit to RoW affected villages (Şadıllı / Gelibolu / Çanakkale- where land exit completed)

Day 3. 15th May 2019, Lot 4 & MS4

- Meeting with Environment and Construction Team including HSE presentations
- Meeting with Social Team including presentations and visit of MS4 Camp site and interview with workers
- Visit to Reinstatement areas and CH66-67 and BVS49
- Social Team visit to MS4 affected village Sarıcaali / İpsala / Edirne for LRP Implementation
- Social Team visit to BVS 49 affected village Mahmutköy / Keşan / Edirne for LRP and other issues

Day 4. 16th May 2019

- Travel to Ankara

Day 5. 17th May 2019

- Technical and Close Out Meetings at TANAP Headquarters

1.7 Report Organisation

This Report follows the format as outlined in the IESC's Project Execution Plan developed by Sustainability and approved by TANAP. The reporting template reflects the scope of IESC's activities and reporting requirements against the full range of Project standards and lender obligations. Sustainability's previous IESC role, including an ESDD in 2016 and two monitoring site visits (2017 and 2018), was focussed on compliance with EBRD Performance Requirements. This monitoring report is expanded to include the assessment against the full scope of the IESC's criteria as outlined above. However, the IESC has only limited time to review Project performance and not all criteria are assessed in single visits.

The report has been structured to incorporate the full range of environmental and social assessment criteria within the appended tables with the key findings discussed in the text contained in Sections 1-5. The intent is to provide significant findings and recommendations within the body of text of the report. The appended assessment tables provide the specific details form site visits and document reviews where relevant. It is not intended that all assessment criteria included in the tables is assessed for every IESC monitoring review.

The general structure and organisation of the report includes:

Section 1: Introduction

Section 2: Status of Previous IESC Findings

Section 3: Compliance with Local Legislation

Section 4: Internal Compliance

Section 5: Compliance with IFI Requirements

Appendix A: IFC Performance Standard Assessment Table

Appendix B: Equator Principles Assessment Table

Appendix C: EBRD Performance Requirements Assessment Table

Appendix D: IFC EHS General Guidelines Assessment Table

Appendix E: World Bank Safeguard Policies

1.8 Classification criteria for review findings

The format approach to reporting Project compliance and performance against the assessment criteria will use a risk-based approach, including priority ranking. Indicators, with whole number reference, will provide a summary of compliance for each criterion. Justification for any derogation from criteria will be summarised in the table and supporting documents referenced

For each indicator within a PS/PR, the steps below will be completed:

1. Apply a risk-based approach – including priority ranking in findings;
2. Ensure number reference to specific requirement, standard, guidance or policy;
3. Determine if the criteria is applicable and if not then score as N/A and provide a brief summary of the reason given (e.g. indigenous people requirements in Turkey);
4. Determine if an opinion is possible – if "no' then No Opinion Possible (NOP) finding is made and reasons given (e.g. too early in Project to determine);
5. Provide commentary on the relevance of the requirements and the reason for allocating the score;
6. Reference the evidence that was assessed in making the finding.
7. Actions Required: Where applicable, briefly describe any actions required by TANAP to achieve full compliance with each requirement. Where a relevant action is included in the ESAP, reference to the ESAP will be made.

Scoring of the indicator will be completed as follows, along with provision of justification**:**

EC	**Exceeding Compliance:** The Project has gone beyond the expectations of relevant IFI requirements / standard / principle. IFIs should be able to use Projects rated EC as a role model for positive Environmental and Social effects.
FC	**Fully Compliant:** The Project is fully in compliance with relevant IFI requirements / standards / principles, and local environmental, health and safety policies and guidelines.
PC	**Partial Compliance:** The Project is not in full compliance with relevant IFI requirements / standards / principles, but has systems, processes or mitigation measure in place which are working towards addressing the deficiencies.

MN	**Material Non-compliance:** The Project is not in material compliance with relevant IFI requirements / standards / principles, and the systems, processes and mitigation measures in place are not working towards addressing the deficiencies.

The Material Non-compliance score has significant implications and requires particular care. In judging whether the measures sufficiently address deficiencies the consultant will consider in a structured way both the level of residual risk and the level of confidence that the Project can successfully bring the issue into compliance with relevant IFI requirements / standards / principles. The table below illustrates the approach to be taken.

Risk	High	PC	MN	MN
	Medium	PC	PC	MN
	Low	FC	PC	PC
		High	Medium	Low
		Confidence		

2. STATUS OF PREVIOUS IESC FINDINGS

The Table below provides an overview of the past IESC findings from ESDD and monitoring visits undertaken by Sustainability Pty Ltd on behalf of EBRD from 2016 to May 2019. Action item status is determined on the basis of evidence provided by TANAP, interviews with relevant personnel and/or site visits. A Justification is provided where the item is found to remain open. Ongoing status reflects the need for the item to remain open due to a recurring action items nature even though the action items have been completed. Items from previous visits that have been considered closed have been removed from the table.

Table 3 Status of previous IESC findings

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
1.5	Environment and Social Management Plans	a) TANAP undertake further assessment of biodiversity impacts associated with the OHL and Anode Bed-lines with a focus on those areas where recommended mitigations were not incorporated in design or not implemented in construction. This further assessment should re-visit the impact and risks associated with the infrastructure and consider mitigation measures that reflect the current status of that infrastructure. The additional environmental assessment should be completed prior to completion of the OHL and anode bed-line construction; b) The OHL and anode bed–line infrastructure assessment of impacts is included in the TANAP Biodiversity Offset Management Planning process; c) TANAP monitoring of impacts to bird species as identified in the OHL environmental assessment	Report was revised. Monitoring was started on 15th April 2019 and is ongoing. The relevant documents were shared within the document package that was prepared before the site visit and further updates were provided during the site visit	Open During the site visit IESC was provided with a tracked changes version of the environmental and social assessment of OHLS and Anode Bed-lines (dated 14.03.2019). The document had been updated to include impacts on and risks to biodiversity and habitats deemed significant (including priority biodiversity features and critical habitats). The document specifically included impacts on IPAs, IBAs and KPAs and included a discussion on the location of OHLS in relation to bird migration routes. Most of the impacts were classified as of low significance. New footprints were added into the previous footprint area considered in

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
		and the performance of any mitigation measures be included in the post construction monitoring programs for the Project. TANAP to seek advice from the IESC prior to commencement of all Project activities that fall outside of approved ESIA and agreed management plans, including management of change documentation, so that the IESC can review the sufficiency of assessments and advise lenders and TANAP on the potential for noncompliance with Project or Lender standards.		the BOS for the calculation of the Net Loss. These footprints included: 63 powerline sections for a total of about 170 km and 1232 powerline poles; 32 anode beds. The habitat map covering these new facilities and a 200m buffer area around them was made available by Çinar the 5th of December and later in its revised version the 21th of December. The revised version was found to have mapping gaps and was revised by Çinar. Based on the review of the "ENVIRONMENTAL & SOCIAL ASSESSMENT OF OHLS & ANODE BED LINES" Report prepared by Çinar for TANAP Project, the two faunal and two floral SCC were included for the calculation of the preparation of the BOMP.
1.6	Organisational Capacity and Commitment	Going forward, the new Operating Company must be suitably structured and employ sufficient environmental and social personnel with relevant experience to ensure the effective implementation of the ESMS and that environmental, social and H&S issues present on the Project continue to be managed effectively.	In line with the completion of Construction Phase, the process of assigning competent employees to the Operations organization and providing support by Ankara Headquarters for Transition period is in progress.	Open The use of Project OH&S to provide oversight to the Operations can put stress on the Project OH&S team as the Project continues to require the full attention of the Project OH&S team especially at this stage of

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
				commissioning, handover and demobilisation.
1.7	Project Monitoring and Reporting	TANAP must ensure that overspill areas are reinstated in parallel with the RoW in accordance with the relevant specification, to an adequate standard.		Open The area of overspill at KP 1257+150 that was observed by the IESC during the June 2018 monitoring site visit (adjacent to the reinstated RoW, where erosion control measures had not been implemented and there was still a lack of vegetation. Consequently, erosion of the steep slopes was evident and rocks were migrating down onto cultivated farmland at the foot of one slope, which was impacting the farmer by making ploughing more difficult) is also included in the latest Çinar Quarterly E&S Monitoring Report (dated 13.03.19) ref. PE-43. This issue has been registered on the Provisional Acceptance Defect List to be addressed within the Contractor's warranty period. In the Çinar Report, a date of completion is given as 31.10.2018. The Tekfen Monitoring and Aftercare Report for Lot 3 (March-

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
				April 2019) includes photographic evidence to verify that this has been addressed. In addition, the damaged scour protection at the river crossing at KP 1257+134 observed by the IESC in June 2018, (which is ref. PE-44 in the Çinar Report) was also registered the Provisional Acceptance Defect List. The Çinar Report also gives a date of completion of 31.10.2018 and photographic evidence was also provided in the Tekfen Monitoring and Aftercare Report for Lot 3 (March-April-May 2019) to verify that this has been addressed.
1.17	Organisational Capacity and Competency	Appoint additional human resources to assist in the timely delivery of social impact mitigation commitments, including emergency preparedness, RAP/LRP and reinstatement commitments.	After completion of the construction in first three Lots, a member of Social Team who was in charge with supervision of the Contractors in Lot 1 & 2, has been assigned for her new role to support to RAP / LRP studies within Social Team.	Closed The Solo Institute has been engaged to prepare an emergency response plan for directly affected communities; this is captured below in 1.20. The RAP/LRP team has been supplemented with an additional resource.

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
1.20	Emergency Preparedness and Response	Develop the scope of work to determine areas of risk in communities and settlements with regards to AGIs and the pipeline, which must include an assessment of the capacity of local emergency responders. Additional risk factors, such as multiple pipelines and the subsequent coordination in the event of an emergency, must also be considered.	A SoW has been prepared and a consultant has been awarded for conducting additional study on Emergency Prep and Response Plan.	Open The Solo Institute has been engaged to prepare an emergency response plan for directly affected communities. Objectives of the study are to: • Determine areas of operational risk in communities and settlements with regards to AGIs and the pipeline, based on risk classification; • Assess emergency scenarios; • Develop emergency management strategies; • Reveal the capacity of local emergency responders; and

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
				• Suggest actions to be taken. This work has commenced, and a draft report is due in mid-late June 2019
1.26-1.28	Stakeholder Analysis and Engagement Planning	• This IFC PR was fully compliant, however this is only an observation. There is still room for improvement Continue with identification of vulnerable households using the specific tools that have been developed. In addition, retain the flexibility to ensure those who may be disadvantaged or unclear about their rights and responsibilities are identified and receive specific support as necessary.	Identification of vulnerable people and families throughout the pipeline route has been completed as mentioned. Preliminary findings were analysed and related actions planned were given in the 9th Internal RAP Monitoring Report.	Closed Field studies for identification of pipeline-affected vulnerable people is scheduled for May 2019, which is to include livelihoods monitoring. Additionally, livelihoods Restoration Assistance Packages (LRAPs), delivery of which is in progress, has a special component of additional cash support for the aged / disabled.
1.29	Disclosure of Information	Undertake a review with BOTAS of potentially vulnerable or otherwise hard to reach (e.g. absentee, semi-permanent resident) stakeholders in advance of the January 2019 Annual Stakeholder meeting. The purpose is to ensure that as wide a cohort as possible receive the latest and most appropriate information.	The annual stakeholder meetings were organized within the framework of the TANAP Stakeholder Engagement Plan in Erzurum, Yozgat, Bursa, and Çanakkale in December 2018 and January 2019. In advance of conducting those meetings, BOTAS Land Rights Entity was asked to give support to identify /	Closed. Ongoing processes to identify vulnerable people is in place with muhtars and Project affected people, including as shown in Contractor engagement records, reported by TANAP and interviewees.

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
			contact and inform hard to reach or potentially vulnerable land users / owners. Further details on this recommendation was also given in the 9th Internal RAP Monitoring Report.	
1.33	Private Sector Responsibilities Under Government-led Stakeholder Engagement	• Consultation during the ESIA was on the basis of the land use being TANAP's temporary construction camp, and so any change to this use requires consultation with Affected stakeholders. • TANAP must have a third party Turkish national consultant review the transfer process to assess whether: • The decision by affected landowners to extend any rental agreements with AFAD is an informed decision and is made free of coercion; • Consultation with potentially affected communities is undertaken by AFAD/PPAA. This is to be applied to all six camps, i.e. regardless of whether they are on private or public land, given that all	A SoW has been prepared and a third-party consultant has been awarded to; - Inform affected landowners and communities about the change in camp sites' land use strategy, including the transfer of land acquisition (compensation) responsibility of these lands to the Third Party, and new contact point after completion of handover; - Consult with affected land owners and communities for assessment of the anticipated social impacts associated with the change in camp sites' land use strategy in accordance with Project commitments, including relevant local and international legal requirements and IFIs' Standards, Requirements, Guidelines; and	Closed. TANAP conducted a study to inform affected communities and stakeholders to evaluate social impacts of the six camp sites that TANAP handed over to institutions (including AFAD and Special Provincial Administration agencies) at the completion of construction phase. Engagement included community level engagement meetings, local authority meetings and face to face interviews relating to the 19 affected settlements. Attendees from the proponent side included experts from the Çinar, BOTAS and TANAP teams. Future uses of camp facilities have been determined that offer continuation of economic contributions to those areas. Annual

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
		may potentially affect other stakeholders/neighbouring settlements.	- Present recommended actions and mitigation measures.	monitoring has been agreed to be conducted in mid 2020. The change management process in relation to this issue is complete. See also s.5.1.1.1
1.35	Grievance Mechanisms for Affected Communities	Provide refresher training to OSID users about correct categorisation of grievance data in the database. Provide refresher training to CLOs on use of culturally appropriate language to encourage stakeholders to raise issues/problems. These should then be raised and managed as grievances through OSID. Consider quality of reinstatement in corporate dashboard metrics as a leading indicator.	Refresher trainings to all OSID users was designed and completed. Details was given in the 9th Internal RAP Monitoring Report. To support this training, relevant document (Online Stakeholder Interaction Database – TNP-GUI-SOC-GEN-001) was also revised accordingly for correct categorisation of grievance data in the database.	Closed Improvements in grievance management was completed. Refresher OSID training was designed and conducted at MS2/CS5, MS1/CS1, Lot 4/Spreads 7&8, and MS3/MS4 in February and March 2019. This included a review of categorisations and descriptors of issues.
1.36	Ongoing Reporting to Affected Communities	Use the Annual Stakeholder Meeting opportunity to verify: • That stakeholders are receiving information disclosure packages • That vulnerable households continue to be identified and engaged	The annual stakeholder meetings were organized within the framework of the TANAP Stakeholder Engagement Plan in Erzurum, Yozgat, Bursa, and Çanakkale in December 2018 and January 2019. There were approximately 150 participants who attended from different interest groups, including	Closed Annual stakeholder meetings were held in January 2019 (146 attendees across four provinces). All mukhtars of the Project-affected settlements were invited to the meetings and CLOs of Lot 4 were asked to assist in accessing and inviting absentee landowners

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
		• That information is effectively being shared between TANAP, BOTAS and CCs regarding potentially vulnerable or other hard-to-reach households.	the governor's officers, local authorities, institutions, provincial directorates, district governorships, mayor representatives, BOTAS LRE Reps., muhtars /reeves and community members from directly affected settlements. TANAP experts responded to various questions on topics such as pipeline construction works, operating period plans, reinstatement of land, and investment programs, creating a general information session. After evaluating the comments, questions and suggestions that came from the participants, it was decided to perform timely actions, which would ensure the long-term sustainability of the current positive communication.	who are not permanent residents for the meetings.
2.23	HS02 H&S Performance	Assess the suitability of the HS targets. If deemed appropriate, strategies need to be identified and implemented to achieve the target. If deemed inappropriate, then consideration should be given to changing them.	2019 targets determined in accordance with the IPLOCA Statistics	Closed HS targets in place and systems implemented to achieve targets.

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
2.23	HS03 Fatality investigation	Ensure that for significant incidents: Interviews and / or witness statements occur immediately (without a delay in time) after the incident. This could be done by formalising the informal interviews. The investigation team incorporate employee representatives. Evidence is documented in the reports to demonstrate that root cause analysis has been completed. TANAP must give consideration to the use of external expert investigators for significant incidents	Recommendations are well noted.	Closed
2.23	HS04 Incident Management	Incident management outcomes must ensure that actions are taken to prevent recurrence of incidents. TANAP should ensure that action is taken to prevent recurrence of similar incidents or incidents with similar causes. For example, issues where deficient supervision was identified as a cause of incidents must have corresponding actions to address this deficiency. In addition, to improve TANAP's response to incidents: Consideration should be given to including employee representatives in the investigations.	Recommendations are well noted.	Closed Investigations reviewed during this visit were compliant and well documented

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
		Consideration should be given to the conduct of drug and alcohol testing for personnel involved in incidents.		
2.23	HS05 HS Supervision	A review of the quality / competence of supervisors, if found to be an issue, subsequently develop a plan to overcome the gaps considering education, training and mentoring. A review must be conducted to establish if the ratio of supervisors (operational) to workers is appropriate. A review must be conducted to establish if there is an over dependence upon H&S advisors regarding operational responsibility for ensuring workers are following safe work methods. .	NA for existing status of the Project.	Open This was not assessed as part of this visit
2.23	HS06 H&S Systems	In light of the prevalence of HS lapses and the significance of some of the lapses, TANAP must investigate the suitability and effectiveness of systems utilised to identify and prevent them i.e. supervision, inspection and audit.	TANAP conducts pre-planned audits and inspections	Closed This was assessed and no issues were identified during this visit.
2.23	HS07 Significant Lapses	Take action to ensure that the standard of barricading is improved so as to prevent accidental falling into open excavations.	Open Excavations were closed. NA	Open All barricading was compliant where assessed during this visit.

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
		Take action to ensure that Spotters on mobile equipment are aware of and do not leave their sentry location. With regards to Hazardous Materials: Take action to ensure that all MSDSs are available in Turkish language Take action to ensure the separation storage of non-compatible materials. Consideration may be given to improved training, procedural control and signage. Take action to ensure that all material is suitably labelled The management of hazardous materials were raised by TANAP with the Contractors prior to the IESC monitoring visit and improvement were underway but not yet complete. TANAP must investigate the conduct of drug testing to determine: If the sample size for alcohol and fatigue testing is suitable. That the scheduling of fatigue and alcohol testing is random so as not to be predicted.	MSDSs are available in Turkish. Non-compatible materials were segregated, and trainings provided as well as safety signage. Random alcohol tests are being conducted. Fatigue tests are being done for the personnel who works during extended working hours.	All mobile equipment usage was compliant at the time of this visit. Chemical storage remains a concern to the IESC with the following partial compliances identified at the CS5 site: Inconsistent chemical compatibility assessments for storage locations Non-compatible chemicals stored together Outdated MSDSs

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
3.6	Waste	TANAP must ensure that all CC and sub-Contractor staff have received adequate and appropriate training prior to commencing work. It is recommended that there is a focus on meeting training requirements in the TANAP management meetings with CCs. Environmental toolbox is required to provide a further refresher session on waste segregation and recycling commitments across sites.	The waste management was corrected by the relevant supervisors and managers including each individual work packages/streams that produce wastes.	Open – See 3.12/13 below. General environmental training is given to all workers as part of their induction that includes waste management. In addition, job specific training is provided as required and toolbox talks are used to focus on areas of concern or planned daily activities. However, despite training and a focus of waste management the use of "at source" segregation bins by workforce remains generally poor.
3.10	Pollution Prevention (Air Quality)	• This IFC PS was fully compliant, however an observation for improvement is provided. Additional dust sampling to be undertaken where dust issues have been identified so as to verify that dust mitigation measures have been effective.	Continuous sampling was conducted, and mitigation measures were taken when required.	Closed There have been no complaints relating to dust from local communities since the previous site visit and all monitoring tests were 100% compliant with Project Standards.
3.12/3.13	Hazardous and Non-hazardous Waste Management	All construction sites Responsibilities for correct waste management be delegated to the individual work packages/streams that produce the wastes so that incidents of incorrect waste	The waste management was corrected by the relevant supervisors and managers including work packages/streams that produce waste.	Open The segregation of waste streams within central waste storage areas at active work sites was being implemented and well managed.

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
		management can be corrected by the relevant supervisors and managers. MS3 Additional inspections outside of the boundary at MS3 are required to ensure windblown waste is collected and managed in accordance with the waste management plans. Adequate separation of potentially incompatible chemicals from flammable waste oil storage is recommended. TANAP are to ensure that the domestic waste area is covered in periods of rainfall to prevent risk of leachate migrating into road drainage system	Adequate separation of potentially incompatible chemicals was corrected at the chemical storage and waste storage areas. Outside of the boundary at MS3 windblown waste was collected and managed in accordance with the Waste Management Plan	However, the IESC observed consistently poor performance with regards to the use of 'at source' segregation bins by the workforce at all sites visited (MS2, MS4 and DSW). There does not appear to have been an improvement in performance with regards to this issue. Chemical storage was not-complaint in the areas visited with the following non-compliances identified across the areas visited: • Inconsistent chemical compatibility assessments for storage locations • Non-compatible chemicals stored together • Outdated MSDSs The IESC did not visit MS3 but windblown waste was observed to be an ongoing issue at the MS4 site.

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
4.9	Emergency Preparedness and Response	It is recommended that the Emergency Response Procedure is revised to include EERT members' details as well as details of how communications with local communities should be managed in the event of an emergency. It should also indicate how the protection of the environment should be ensured during an emergency.	A SoW has been prepared and a consultant has been awarded for conducting additional study on Emergency Prep. and Response Plan.	Open TANAP advised of continued work undertaken to assess public safety risk from Project facilities and operations. This information is expected to further define the operational ER Plans. The Solo Institute has been engaged to prepare an emergency response plan for directly affected communities (see also 1.20), which will inform processes for communications with local communities. Regular emergency response exercises are scheduled for all sites across the Project and operations.
5.2	Consultation	TANAP to hold RAP meetings in Lots 1 and 3.	Pls. refer to 9th Internal RAP Monitoring Report for the update.	Open Ongoing in Lot 1 (70% completion). RAP Fund targeted community meetings have been completed in Lots 2, 3 and 4 while the meetings in Lot 1 were delayed to prioritise land exit

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
				meetings. Delivery of information and materials on RAP Fund was combined with the land use awareness raising meetings. 62 meetings were held in this format. Thus, 70% of the settlements in Lot 1 were informed about RAP Fund. It is noted that there have been no RAP Fund claims or requests, rather, land use restrictions and claims for additional compensation (expropriation of land) due to slope-breakers was most commonly requested.
5.4	Grievance Mechanism	TANAP to provide additional focus on Grievance resolution support for Stations CLOs	Remarkable progress was achieved. For details, pls refer to 9th Internal RAP Monitoring Report.	Closed TANAP has focused efforts to reduce the complaint response period and the procedure to monitor complaints. From Project commencement to 15 March 2019, 4459 complaints have been received, 95% of which (4253) are closed. 4% (170) are open and 1% (36 records) are at waiting status. The most frequent issues are

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
				reinstatement and damage to crops and land (Q9 reporting period).
5.7	Monitoring	The IESC notes that the LRAP database will need to enable capture of roles, responsibilities and ongoing monitoring not only for construction phase, but also the transition phase to operations. Livelihoods support may need to continue through the transition/operations phases in the case where livelihood restoration has not yet been achieved.	It continues as recommended. For details, pls. refer to 9th Internal RAP Monitoring Report.	Ongoing
6.2.3	Conservation of Biodiversity, Bio-restoration	TANAP should ensure that overspill areas are reinstated in parallel with the RoW in accordance with the relevant specification to an adequate standard, with erosion control measures such as slope breakers implemented where required.		Open The IESC did not observe any areas of overspill during the site visit. Please see 1.7 in this table and 1.24 in Appendix 1.
6.7	(General) Impacts on Biodiversity and Ecosystem Services	See ID 1.5 PS1 action in regard to biodiversity assessments of OHL and Anode Bed-Lines.	See 1.5 PS1	Open see PS 1.5
8.9	Consultation	This IFC PS was fully compliant, however this is only an observation. There is still room for improvement Consider / investigate opportunities for partnership to support further pursuit of excavation, documentation,	The results of the salvage excavations of TANAP Project were presented at the 27th Museum Salvage Excavations Symposium, which was hosted by Ministry of Culture and Tourism in	Closed. TANAP is commended for creating an exhibition space with replica finds, interpretation materials and videos in English and Turkish for public display,

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
		protection, tourism and/or other cultural heritage work on the Alaybeyi Archaeological site.	April 2018, by Erzurum Museum, Kütahya Museum and Bursa Museum. TANAP Senior Archaeologist attended International Symposium of Propontis and the Surrounding Cultures on behalf of TANAP for presenting the Project's archaeological works in the region as of October 2018. There were the below ongoing activities, which will be continued in 2019, as well; • TANAP-Archaeological findings books about all excavated archaeological sites and findings were prepared at the beginning of September with the support of relevant museum directorates. Publishing process is ongoing.	in addition to presentation at a Symposium and in literature.

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
			• 4 articles about the TANAP Çokköy excavation will be written by TANAP Senior Archaeologist and ANKON Anthropologist in the Kütahya Museum Yearbook - 2017. This book will be published as the "TANAP Special Issue". • Alaybeyi Salvage excavation book will be prepared and published under the Erzurum Museum Directorate till September 2019. • Salvage excavation book about the Kalebayır, Şevketiye and Üzümlü archaeological areas will be prepared and published under the Bandırma Museum Directorate till October 2019.	

Ref.	Performance Requirement	Actions Required	TANAP Response	Status
			• Replica artefacts were reproduced with the permission of the Ministry of Culture and Tourism for the archaeology awareness.	

3. COMPLIANCE WITH LOCAL LEGISLATION

The environmental and social impacts of the Project have been assessed through a systematic process applied for all Project components as identified through the ESIA scoping process and engagement with key Government stakeholders in Turkey. The ESIA has been developed to meet national standards, TANAP policy and guidance provided by international institutions. The ESIA of the TANAP Project was completed in 2013 and "EIA Positive Decision" for the TANAP Project was obtained from the Ministry of Environment and Urbanization (MoEU) in 2014.

The following table outlines any warnings, penalties or correspondence provided by local, regional or governmental authorities to the TANAP Project to date.

Table 4 Compliance with local legislation

Construction Site	Warning	Penalty
Lot 1	Nothing to report	Nothing to report
Lot 2	Nothing to report	Nothing to report
Lot 3	Nothing to report	Nothing to report
Lot 4	Nothing to report	Nothing to report
Stations	Nothing to report	Nothing to report
Offshore	Nothing to report	Nothing to report
Scada/Telecoms	Nothing to report	Nothing to report

The latest Çinar quarterly environmental and social monitoring report (CIN-PRQ-PRC-GEN-025 Rev-P3-C) issued in March 2019, does not refer to any breach of Turkish legislation. During the opening presentations, the IESC was informed that there have been no financial penalties or warnings on the Project to date as a result of environmental incidents or the exceedance of environmental thresholds.

4. INTERNAL COMPLIANCE

The IESC was informed during this site visit that there have been no Project changes in 2019 that have been subject to the TANAP Management of Change (MoC) process. The most recent MoC was in relation to the potential change to the final land use for 6 Project early works camps (5.1.1.2)

The ESAP was last updated in April 2017. Following review, the IESC has not identified any outstanding actions. The GHG report was submitted to the Lenders in Q1 2018 as required (ESAP Number 3.1). A Biodiversity Offset Management Plan is required as part of the Biodiversity Offset Strategy (EASP Number 6.1). Site monitoring and validation surveys have been completed by Golder including rehabilitation status along the BTC pipeline and baseline degradation levels along the TANAP route.

5. COMPLIANCE WITH IFI REQUIREMENTS

This section outlines compliance with IFI requirements. The IFC Performance Standards have been selected to form the basis of the compliance assessment with narrative descriptions focussed on describing key findings/issues of the monitoring visit.

Narrative description of key findings is provided for the EBRD Performance Requirements where they differ materially from the IFC Performance Standards.

Assessment against MIGA Performance Standards and the Equator Principles is not undertaken in this section, as the Equator Principles follow the IFC Performance Standards, and as such, content mirrors that which is provided for the assessment of compliance with IFC Performance Standards. An Equator Principles assessment table is included in the Appendices Section.

5.1 IFC Performance Standards (2012)[1]

5.1.1 Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts

5.1.1.1 Operational Readiness: Construction phase to Operations

There is a continued focus by TANAP on operational readiness and handover of assets from the construction phase to the operations phase. Existing management systems are being utilised as a basis for transition to the operations and the QHSSE team on the Project are assisting with this transition. The change to operations will be a key focus of the next IESC visit in November 2019.

The IESC raised an observation that the use of Project OH&S to provide oversight to operations can put stress on the Project OH&S team as the Project continues to require the full attention of the Project OH&S team especially at this stage of commissioning, handover and demobilisation.

5.1.1.2 Management of Change

The environmental and social assessment of OHLS and Anode Bed-lines (dated 14.03.2019) has been updated to include impacts on and risks to biodiversity and habitats deemed significant (including priority biodiversity features and critical habitats), specifically impacts on IPAs, IBAs and KPAs and inclusion of discussion on location of OHLS in relation to bird migration routes.

Based on the findings of Çinar's bird monitoring report, focusing specifically on spring breeding and autumn migration, TANAP will reassess the necessity for mitigation measures for birds and further monitoring requirements. This report was not available for review at the time of the audit. Relevant commitments would then need to be included in the Biodiversity Offset Management Planning process and post-construction monitoring programs of the Project.

There have been no Project changes in 2019 that have been subject to the TANAP Management of Change (MoC) process. The most recent MoC was in relation to the potential change to the final land use for 6 Project early works camps. Consultation at the time of the Project's ESIA was on the basis of the land use being TANAP's temporary construction camp, and so any change to this use required consultation with affected stakeholders.

[1] Including Equator Principles and MIGA Performance Standards.

TANAP conducted a study to inform affected communities and stakeholders to evaluate social impacts of the six camp sites (affecting parts of Lots 1, 2 and 3) that TANAP handed over to institutions (including AFAD)[2] at the completion of construction phase. Engagement included community level engagement meetings, local authority meetings and face to face interviews with interviews relating to the 19 affected settlements from 16-28 March 2019, as shown in Figure 1 below. Attendees from the proponent side included experts from the Çinar, BOTAS and TANAP teams. Future uses of camp facilities have been determined that offer continuation of economic contributions to those areas. Two camps will be reinstated at the conclusion of the lease period (Erzurum Pasinler and Yozgat Dogankent Camps), while use of the other four are: use by public institutions (Kars Selim Main Camp); temporary protection centre for immigrants (Erzincan Cadirkaya Camp); women's open prison (Sivas Hafik Camp); and AFAD Training Centre (Ankara Polatli Camp). Annual monitoring has been agreed to be conducted in mid 2020 on grant protocol requirements and social impacts. The change management process in relation to this issue has now been completed.

Figure 1 Camp site consultation meeting

CAMP SITE	PROJECT PART	LOCATION	INSTITUTION MEETINGS	COMMUNITY LEVEL CONSULTATION MEETINGS	LOCAL AUTHORITIES
Selim Main Camp	Lot-1, Spread-1	Kars Province, Selim District	Kars Special Provincial Administration	Köprübaşı, Oluklu, Tozluca and Kekeç Villages 14 Attendees*	Selim Mayor
Pasinler Main Camp	Lot-1, Spread-2	Erzurum Province, Pasinler District	Disaster and Emergency Management Presidency (AFAD)	Üğümlü, Epsemce and Yukarı Danişment Villages 18 Attendees*	
Çadırkaya Main Camp	Lot-2, Spread-3	Erzincan Province, Tercan District, Çadırkaya Town	Erzincan Special Provincial Administration	Çadırkaya with communities of Camiikebir, Yeni Mahalle and Gözeler quarters 30 Attendees*	Çadırkaya Mayor
Hafik Main Camp	Lot-2, Spread-4	Sivas Province, Hafik District	Sivas Special Provincial Administration	Hafik with Yenimahalle, Günyamaç, Fatih, Tepe, Çay and Koç Quarters 35 Attendees*	Hafik Mayor
Doğankent Main Camp	Lot-3, Spread-5	Yozgat Province, Sorgun District, Doğankent Town	AFAD	Doğankent 13 Attendees*	Doğankent Mayor
Polatlı Main Camp	Lot-3, Spread-6	Ankara Province, Polatlı District	AFAD	Şentepe Quarter and Türkarsaklı Village 5 Attendees*	Polatlı Mayor

*some participants of the information meetings did not sign the attendee list.

5.1.1.3 Emergency Preparedness and Response

The IESC previously recommended that TANAP appoint additional resources to assist in the timely delivery of social impact mitigation commitments, including emergency preparedness. During the site visit, the IESC was pleased to be able to meet with the Solo Institute, who has been engaged to prepare an emergency response plan for directly affected communities. This will determine areas of operational risk in communities and settlements with regards to AGIs and the pipeline, based on risk; assessment of emergency scenarios and appropriate emergency management strategies; and to recommend an action plan for implementation. Work has commenced and a draft deliverable is due in June 2019. This item remains a partial compliance until satisfactory finalisation of the Plan.

[2] Provinces Special Provincial Administration of Kars, Erzincan, and Sivas Provinces; and the Disaster and Emergency Management Presidency (AFAD).

5.1.1.4 Stakeholder Engagement, Information Disclosure and Grievance Management

Stakeholder engagement is being carried out in accordance with the Stakeholder Engagement Plan and interviews with community members during this visit demonstrated good feedback on accessibility and responsiveness of CLOs to any community concerns/issues. TANAP continues to engage and disclose information in line with Project activities, including the Annual Stakeholder Meeting, with AGI-affected settlements on LRAP. The IESC observes that while Project construction is nearing completion, however impacts are ongoing in active work areas. The Project's stakeholder engagement and information disclosure needs to continue to respond to stakeholders, as well as Project, needs.

Significant efforts to improve grievance management have been implemented and these measures have decreased grievance numbers and response times. From Project commencement to 15 March 2019, 4,459 complaints have been received, 95% of which (4,253) are closed. 4% (170) are open and 1% (36 records) are at waiting status. Additionally, an OSID review and refresher training was conducted with minimal recategorisation of grievances required (e.g. only two relating to Tekfen stations).

Lastly, the IESC observes that the resources and systems to support the work needs to be maintained during the transition to operations, including the IT systems to ensure construction data is accessible, as well as the 'corporate memory' for addressing post-construction issues. IT systems includes access to the OSID database, which must be maintained.

5.1.2 Performance Standard 2: Labour and Working Conditions

5.1.2.1 Working Conditions and Worker Relationships

The Project workforce continues to demobilise. There are in total 3,566 workers (as at 30 April 2019), comprising the Integrated Project Management Team (IPMT), EPCM Worley Parsons, Panj Lloyd and Tekfen plus subcontractors. Since October 2018, a total of 6,866 were demobilised from the IPMT, Lot 4 and Stations. Çinar's monitoring of implementation of the Retrenchment Management Plan has continued to verify compliance with Turkish laws and regulations and Project requirements. The IESC is satisfied that there is adequate monitoring of retrenchment processes and that any issues are being raised and closed out in line with Project requirements.

Grievances raised by workers regarding retrenchment have related to unpaid salaries, were registered in OSID, investigated, actioned and closed out. A total of 33 grievances were received since the previous IESC visit, 23 of which related to employee wages / overtime payments; 3 of these are still under investigation and remain open. Tekfen indicated that since Project commencement, all 43 worker complaints at CS5/MS2 and 15 at MS4 had been registered in OSID and closed.

TANAP continues to provide oversight of its construction Contractors' HR management as they conclude their activities and demobilisation increases. Use of quarterly third party labour audits to verify contracted labour is being managed in accordance with TANAP's standards and national law continues, with Practical Solutions focused on compliance with labour requirements and Çinar auditing compliance with Employment and Training Plans of Contractors. TANAP has also been implementing the Working Hours Action Plan (TNP-STR-PRM-GEN-003_23.03.2019). Findings from the audits are registered and tracked by TANAP HR with actions being closed out. The issues identified in the third party labour audits continue to identify overtime payments issues, including of subcontractors, which are being followed up and closed out. TANAP's analysis of overtime working has identified that in the majority of cases, overtime was within legal limits. The IESC is satisfied that this oversight is effective in providing verification of appropriate human resource management practices across the TANAP workforce.

Interviews with workers during this visit verified that the workforce is being managed and demobilised with adequate notice, information about the timing and process forthcoming on demobilisation and the mechanism in place to raise any grievances.

5.1.2.2 OH&S

The IESC observed good general compliance to OH&S requirements and TANAP standards across all the sites visited with work observed being conducted safely and with the necessary controls in place. Where minor OH&S issues were observed, they were rectified immediately or within a very short timeframe with evidence provided to the IESC.

Permit to work tasks sampled were compliant with all requirements including but not limited to risk assessments in place, permit to work documentation in place and controls in place.

Chemical storage was not fully compliant with the following partial compliances identified at the CS5 site:

- Inconsistent chemical compatibility assessments for storage locations
- Non-compatible chemicals stored together (Figure 2)
- Outdated MSDSs

A concern to the IESC is that this is a repeat finding from the last assessment.

Figure 2 Incompatible chemical storage example

The IESC raise an observation that the use of Project OH&S to provide oversight to the Operations can put stress on the Project OH&S team as the Project continues to require the full attention of the Project OH&S team especially at this stage of commissioning, handover and demobilisation.

The IESC raised an observation that isolation and lockout observed was in compliance with TNP-PCD-GEN-002 Lock-out & Tag-out Requirements and TNP-PCD-HSM-GEN-037 Energy Isolation Procedure but was not best practice. Best practice is for all people working on an isolation to use personal locks. Whilst being found fully compliant with the Energy Isolation Procedure implemented by the Project, an opportunity for improvement to consider the use of personal isolation locks has been suggested.

5.1.3 Performance Standard 3: Resource Efficiency and Pollution Prevention

5.1.3.1 Pollution Prevention

In general, the IESC observed good pollution prevention practices being implemented by the EPC Contractors at all sites visited. This included the consistent use of drip trays to contain potential spillages of fuels or oils beneath generators. Additionally, appropriately and adequately stocked spill kits were located where required. It should, however, be noted that using sellotape to keep the lid one spill kit at the DSW site closed, due to windy conditions, will prevent immediate access in the event of a spill and should not be continued. It is recommended that the spill kit be moved into a container out of the wind.

There were two observations where hazardous materials were being stored without appropriate secondary containment. The first was at MS4 where a lack of appropriate storage space had resulted in large plastic containers of anti-freeze being stored adjacent to the main site drainage channel, which could result in the contamination of the on-site biological wastewater treatment plant in the event of a leak. It is recommended that stock levels are better managed to ensure there is adequate storage for all hazardous substances in an appropriately protected area of the site. The second observation was at MS2 where large plastic containers of waste filter separation water were being stored without secondary containment. The IESC recommends that a concrete bund is placed around this part of the storage area.

5.1.3.2 Waste Management

At all of the sites visited, the IESC observed an on-going and consistent trend of poor use of the 'at source' waste segregation bins, despite the majority of the bins being labelled for a given waste stream (plastic, paper, domestic, glass etc.). This has been raised as an issue in previous IESC E&S Monitoring Reports but there has been a lack of improvement in performance. As such, a more targeted approach is needed to achieve a change in workers' behaviour, with increased levels of oversight on site. It is recommended that TANAP/Contractors consider appointing individual workers with waste monitoring responsibilities, who could on a rotational basis be stationed near to waste segregation bins on site to ensure their correct use.

At the DSW site, the IESC observed a significant amount of windblown waste across and around the site. This site is located near to the coast and is notoriously windy, however, there were bins observed without lids and all bins were located outside. It is recommended that all bins at this site have lids and that they are placed within containers. Furthermore, weekly clean ups could be arranged to pick up windblown waste from around the site.

5.1.3.3 Topsoil Management

Topsoil storage was observed by the IESC to be generally very well managed. Topsoil stockpiles were mostly clearly labelled as topsoil, covered and seeded to prevent erosion, and barricaded for protection from vehicle encroachment / disturbance. However, a topsoil stockpile at the DSW site was observed to have been highly compacted likely to result in anaerobic conditions, destroying the biological content and preventing natural revegetation) and unlabelled. TANAP should work with the Contractor PLK to ensure that the requirements of the Erosion, Reinstatement and Landscaping Plan with regard to Topsoil Management are being consistently met and to ensure that necessary actions are taken to restore the condition of this topsoil to its original state.

5.1.3.4 GHG Emissions Quantification

In order to track GHG emissions generated as a result of Project activities during construction, TANAP has implemented a monthly reporting framework that consolidates Scope 1 and 2 emissions data from direct TANAP sources and EPC Contractors. TANAP has produced an Annual GHG Emissions Report for the Construction Phase (2018) and this shows that the Project generated 71,646.05 t CO_2 eq during 2018

(scope 1 and 2 emissions), which represents a 44% decrease in emissions compared to 2017. There are a number of assumed reasons for the decrease, including that Phase 0 construction activities were completed in July 2018 and a number of Camps were closed; resulting in a significant decrease in diesel consumption relating to the use of Project vehicles and equipment, as well as heating. In addition, the offshore section was completed in August 2018 reducing the emissions from vessel activities.

During the previous site visit, TANAP were in the process of procuring consultant services to compile GHG emissions for the operations phase, with the intention of commencing operational GHG records in 2018 to inform a 2018 Phase 0 Operations GHG Report. During this site visit the IESC was informed that TANAP has appointed Çinar to conduct annual GHG reporting to meet Turkish legal and IFI requirements, and ESIA commitments. In addition, Çinar will be producing annual verification reports for the continuous emissions monitoring system (CEMS). The IESC has been provided with the Çinar 2018 Annual GHG Emissions Report for Operations (dates 28.03.2019). This includes Scope 1 and 2 emissions and reports that the total annual GHG emissions resulting from the operation of the Project in 2018 is 19,027 t CO_2 eq. The total operational GHG emissions are expected to increase in 2019 due to start of operation of all components of Phase 0 facilities and the start-up of Phase 1 facilities.

5.1.4 Performance Standard 4: Community Health, Safety, and Security

5.1.4.1 Community health and safety and security

Road safety remains the key risk to communities, consistent with earlier visits. The use of In-vehicle monitoring system, an ongoing focus on use of seatbelts and prevention of use of mobile phones, as well as driver welfare, were all evident during the visit.

The introduction of gas into the system appears not to have caused any concerns within the affected communities to date, either reported to the IESC during the visit or recorded in observed grievance logs. TANAP has commissioned consultants to develop an emergency response plan for directly affected communities, which will also enable targeted capacity development with response agencies, where this may be required (see 5.1.1.3).

5.1.4.2 Security

No reports were received of allegations of unlawful or abusive acts of security personnel since the previous visit.

5.1.5 Performance Standard 5: Land Acquisition and Involuntary Resettlement

5.1.5.1 Consultation and Engagement

Updates to RAP and LRP Plan and procedural documents are continuing as the Project progresses and additional guidance has been prepared in a timely manner to meet Project needs, including for implementation of transitional support and response to multiple pipeline effects.

TANAP's engagement with affected communities continues. Land entry is completed, and Land Exit is almost complete in Lots 1, 2 and 3. In Lot 4, completion of Land Exit is 34% (as at 29 March 2019). Lot 4 has benefitted from the experience of Social Specialists moving from Lots 1-3 to support teams there. Land use awareness raising meetings had been combined with RAP Fund consultation in Lot 1 due to time constraints however this does not appear to be generating any complaints from stakeholders.

Efforts have been made to disburse RAP Fund payments since the previous visit, facilitating redress for PAPs affected by multiple pipelines and to support transitional payments. Support to meet land registry requirements has also enabled more affected stakeholders to access their entitlements, through generation of the required documentation/evidence.

Participation of affected communities is being strengthened, in particular through direct engagement through Focus Group Discussions with women in AGI-affected settlements on community-based livelihood and social support options. Additionally, targeted engagement has been effective on LRP, which was additionally verified by the IESC during interviews with PAPs during the visit.

The IESC notes TANAP's efforts in ensuring processes have been well understood by PAPs and urges the Project to retain focus for completion of Lot 4 activities.

5.1.5.2 Grievances

Refresher training was carried out with system users of OSID in February/March 2019. This facilitated better understanding of the history of local grievances/corporate memory as well as ensuring consistency within the teams entering data on grievances received. The most frequent issues recorded in the Q9 reporting period are reinstatement and damage to crops and land, reflective of the Project activities of the period.

5.1.5.3 Land acquisition

Total number of parcels subject to land acquisition is 28,739 (an increase of approximately 400 from the previous visit) and 95.7% of public and private parcels have been registered in the name of the LRE.

5.1.5.4 Livelihood restoration

Current figures (as at March 2019) for livelihood restoration eligibility is 133 households, to whom 96% of livelihood restoration assistance packages (LRAPs) have been completed. TANAP is commended on progressing this area of work; interviews with PAPs during the visit indicated very good support from the Team to affected households in understanding eligibility and delivering the PAPs' selected support measures.

The IESC notes TANAP's efforts to identify AGI-affected vulnerable people and further, that the External RAP Monitoring group reported (Dec 2018) high levels of satisfaction with transitional support provided through the RAP Fund and livelihood assistance packages provided to vulnerable AGI-affected people.

5.1.5.5 Monitoring

Monitoring efforts are ongoing. The RAP Monitoring Plan is to be updated in the coming quarter to fill gaps identified earlier by the External RAP Monitoring team, specifically, on outcome / output indicators to monitor livelihood impacts relating to the pipeline and AGIs and the grievance redress mechanism. The TANAP team have prepared a Scope of Work (SoW) for the RAP Completion Audit. The IESC recommends that the RAP Monitoring Plan is revised and the SOW checked that it aligns with outcome / output indicators prior to tendering the Completion Audit.

5.1.6 Performance Standard 6: Biodiversity Conservation and Sustainable management of Living Natural Resources

The IESC's findings in regard to the biodiversity assessment of the OHL and anode bed lines through management of change processes are included in the PS1 discussions above.

5.1.6.1 Biorestoration and Reforestation

Whilst ROW reinstatement had been completed for most of the sites visited in Lot 4, biorestoration and reforestation had not yet commenced so this was not assessed during the audit.

5.1.6.2 Implementation of the Mitigation Hierarchy in Critical Habitat

A key focus of the IESC visit was progress and performance of construction activities at Critical Habitat (CH) sites. Of the five CH sites (CH 58, CH 64, CH 65, CH 66 and CH 67) visited, the IESC was satisfied that

TANAP, and its Contractors had undertaken the requisite specialist studies during pre-construction and construction to avoid impacts on CH triggering species. The IESC determined that mitigations required by the BAP were included in construction scheduling and planning. Specialist advisory services were obtained from competent professionals to identify potential Project impacts and risks prior to construction (for example at CH 64 and CH 67). The IESC determined that the appropriate professional advice was sought to assess the necessity for implementation of restriction periods and mitigations as specified in the BAP. Where construction took place during a restriction period (e.g. for congregatory bird species at CH 64 and CH 67) the rationale was well justified. The IESC was also satisfied that experts with the appropriate regional experience were retained on site to monitor construction activities and assist in the development and implementation of the mitigation hierarchy where necessary.

Conservation of a SSC plant was demonstrated at CH 58 through the collection of seeds at the appropriate time of year and subsequent planting. The IESC observed successful seedling recruitment and effective protection of seedlings from livestock grazing and trampling. The IESC was satisfied that TANAP and its Contractors undertook the necessary precautions to ensure no measurable adverse impacts to CH triggering species in accordance with the BAP.

5.1.6.3 Biodiversity offset Planning and Implementation

The IESC has reviewed and is satisfied with the progress in development of the Biodiversity Offset Management Plan (BOMP) being completed by the Project's biodiversity specialist consultant team engaged by TANAP in 2017.

Following on from the July and September 2018 Quarterly Reports described in the previous audit the December 2018 Quarterly Report continued to focus on refining the baseline value of degradation of natural habitats in the LSA and at potential offset sites and refining rehabilitation success at 20 years to provide a more accurate parameter in the offset equation and a targeted species survey of species of conservation concern (SSC) that may be at risk of extinction in the 20-year rehabilitation strategy. Following the review of the legal and institutional framework necessary to contextualise the feasibility of the biodiversity offsets, described in the September Quarterly Report, potential offset sites were screened according to principles outlined in the Biodiversity Offset Strategy (BOS) to provide a short-list of potential sites and these sites were then ranked according to four criteria identified in the BOS.

The March 2019 Quarterly Report described continued progress on many of the abovementioned activities in addition to focusing on assessing habitat suitability for the SCC and undertaking final net loss calculations. Offset opportunities were identified and habitat mapping of the top-ranking potential offset sites was undertaken. Potential offset implementation activities were identified, and parametric costs of these activities defined. Stakeholder consultations at the national level and with national and regional stakeholders were undertaken

In Q1 of 2019 final net loss calculations were defined for 2019 Project activity implementation only. The five short-listed NGOs provided TANAP with 13 proposed specific offset activities to be undertaken in 2019 accompanied by associated implementation costs. A formula has been established for total biodiversity net loss that takes cognisance of losses incurred to specific European Nature Information System (Eunis) habitat types and ecoregions and target species. Appropriate criteria have been developed for ranking potential offset sites and a habitat map prepared for each of the 12 top-ranking offset sites.

TANAP held a workshop in April 2019 with an extensive list of stakeholders and potential NGO implementation partners were identified through a process of consultation with NGOs at the national level.

In Q2 2019 TANAP will select which NGO(s) to contract as the offset implementation partner(s) based on proposed budget, proposed offset activities and other considerations. Concerns currently exist over the budget allocation of direct versus indirect costs of Project implementation budgets need to be aligned with lender requirements and their desire for maximum expenditure on direct costs. The selected NGO implementation partners will then commence preliminary habitat mapping studies and targeted species surveys on the potential offset sites to assess their suitability for offsetting residual impacts. They will also commence consultation with national and regional stakeholders.

Once these studies are completed determination of net gain is scheduled for Q3 2019 and final offset Projects and plans will be developed in Q4 2019.

IESC considers the scheduling and procedure for biodiversity offset implementation to be on track and in accordance with the requirements of PS6

5.1.7 Performance Standard 8: Cultural Heritage

TANAP and the Ministry of Culture and Tourism are working closely to ensure identification, protection, mitigation and management of cultural heritage sites associated with the Project, and in line with both national and lender requirements. All chance finds reported during the Project excavations have been successfully closed out. Chance Find procedures remain in place but there is very limited ground disturbance taking place at this stage of the Project.

TANAP has ensured that cultural heritage finds are accessible through creation of a display and replica archaeological finds (with the permission of the Ministry of Culture and Tourism); presentations to Symposia; books; video and interpretation materials about the finds.

Appendix A Assessment Table - IFC Performance Standards (2012)

PS Heading Para. Ref.	Description of IFC PS Requirements	Findings / Comments	Compliance Category	Actions Required
1. PS1: Assessment and Management of Environmental and Social Risks and Impacts				
Environmental and Social Assessment and Management System				
1.5	Conduct a process of environmental and social assessment and establish and maintain an Environmental and Social Management System (ESMS)	The environmental and social impacts of the Project have been assessed through a systematic process applied for all Project components as identified through the ESIA scoping process and engagement with key Government stakeholders in Turkey. The ESIA has been developed to meet national standards, TANAP policy and guidance provided by international institutions such as the IFC, EBRD and EU. The ESIA of the TANAP Project was completed in 2013 and "EIA Positive Decision" for the TANAP Project was obtained from the Ministry of Environment and Urbanization (MoEU) in 2014. During the site visit IESC was provided with a tracked changes version of the environmental and social assessment of OHLS and Anode Bed-lines (dated 14.03.2019). The document had been updated to include impacts on and risks to biodiversity and habitats deemed significant (including priority biodiversity features and critical habitats). The document specifically included impacts on IPAs, IBAs and KPAs and included a discussion on the location of OHLS in relation to bird migration routes. Most of the impacts were classified as of low significance. New footprints were added into the previous footprint area considered in the BOS for the calculation of the Net Loss. These footprints included: 63 powerline sections for a total of about 170 km and 1232 powerline poles; 32 anode beds. The habitat map covering these new facilities and a 200m buffer area around them was made available by Çinar the 5th of December and later in its revised version the 21th of December. The revised version was found to have mapping gaps and was revised by Çinar. Based on the review of the "ENVIRONMENTAL & SOCIAL	**PC**	Based on the findings of Çinar's bird monitoring report, TANAP are recommended to reassess the necessity for mitigation measures and further monitoring requirements for birds.

		ASSESSMENT OF OHLS & ANODE BED LINES" Report prepared by Çinar for TANAP Project, the two faunal and two floral SCC were included for the calculation of the preparation of the BOMP. There have been no Project changes in 2019 that have been subject to the TANAP Management of Change (MoC) process. The most recent MoC was in relation to the potential change to the final land use for 6 Project early works camps. TANAP conducted a study to inform affected communities and stakeholders to evaluate social impacts of the six camp sites that TANAP handed over to institutions (including AFAD and Special Provincial Administration agencies) at the completion of construction phase. Engagement included community level engagement meetings, local authority meetings and face to face interviews relating to the 19 affected settlements. Attendees from the proponent side included experts from the Çinar, BOTAS and TANAP teams. Future uses of camp facilities have been determined that offer continuation of economic contributions to those areas. Annual monitoring has been agreed to be conducted in mid-2020. The change management process in relation to this issue has now been completed.		
Policy				
1.6	Establish an overarching, stand-alone, Project-specific policy, which defines E&S objectives and principles that guide the Project to achieve sound E&S performance.	TANAP has a current documented Environmental and Social Policy. TANAP Contractors and subcontractors also have documented Environmental and Social policies. TANAP have ensured that their Environmental and Social Policies have been updated to reflect details of the new operating Company. Construction Contractors and subcontractor Policies have been revised to reflect this if where required thus far, during the transition period from construction to operations.	**FC**	
Identification of Risks and Impacts				
1.7	Establish and maintain a process for identifying Project-related E&S risks and impacts, in accordance with good	The environmental and social impacts of the Project have been assessed through a systematic process applied for all Project components as identified through the ESIA scoping process and engagement with key Government stakeholders in Turkey. The ESIA	**FC**	

	international industry practice (GIIP). transboundary effects.	has been developed to meet national standards, TANAP policy and guidance provided by international institutions such as the IFC, EBRD and EU.		
1.8	Analyse risks and impacts in the context of the Project's area of influence.			
1.9	Consider risks and impacts resulting from third party involvement (where the client can reasonably exercise control).			
1.10	Consider risk and impacts associated with primary supply chains (where the client can reasonably exercise control) defined in PS2 and PS6.			
1.11	Take cognisance of the findings and conclusions of related plans, studies or assessments that are directly related to the Project and its area of influence and the outcome of engagement with Affected Communities.			
1.12	Identify individuals and groups directly and differentially or disproportionately affected by			

	the Project because of their disadvantaged or vulnerable status and implement differentiated measures to ensure they are not disproportionally impacted or disadvantaged in terms of benefits and opportunities.			
Management Programs				
1.13	Establish management programmes that describe mitigation and performance improvement measures and actions that address the identified risks and impacts.	Prior to the commencement of the Operations Phase of the Project in June 2018, the Operational E&S Management Plans were finalised and incorporated transitional planning from the construction and commissioning phases through to operations as recommended by the IESC. The operational environment, safety and social management systems are therefore considered to be generally in place with operational risks being effectively managed. Operational E&S commitments are tracked and implemented through the Commitments Register. There are, however, a number of activities that are on-going to ensure operational readiness. These include: • The on-going review of Operational Documents to ensure all HSE aspects are included; • Ensuring all Operations Environmental Plans have been implemented; • Continuation of the Operations Phase Environmental Permitting Process (Provisional Operation Certificates have been obtained); • A review of waste management, which is still under the responsibility of the Contractors; and	**FC**	
1.14	Favour impact and risk avoidance over minimisation, and where residual impacts remain, compensate or offset these, where technically and financially feasible.			
1.15	Ensure mitigation and performance measures comply with applicable laws and regulations and meet PS1 to PS8.			
1.16	Establish E&S Action Plans defining desired outcomes as			

	measurable events with performance indicators, targets and acceptable criteria that can be tracked over defined periods, with estimates of resources and responsibilities for implementation. Plans must recognise the role of third parties and must be responsive to changes in circumstances, unforeseen events and results of monitoring and review.	• A review of wastewater management, which is still being sent to Municipalities. With construction activities remaining under Phase 1 of the Project (which was 98.7% complete at the time of the site visit), the existing Construction Contractors' ESMSs are still valid, and there are on-going compliance reviews and inspection audits by TANAP to ensure the correct implementation of Management Plans and Method Statements. The monitoring site visit identified a number of examples of inconsistent implementation of Environmental and Health & Safety controls by Contractors (Tekfen and PLK) (waste management, topsoil management, etc.). The IESC recommends that TANAP continues to work closely with the Contractors as the Construction Phase comes to a close, to ensure that Project commitments outlined in the ESMS are fully implemented and corrective actions are implemented when gaps in compliance are identified. It will be important to maintain the high standards of HSSE performance achieved on the Project to date despite increased levels of demobilisation. This may necessitate some targeted refresher training. The IESC notes the refresher training that has been conducted already in grievance management.		
Organisational Capacity and Competency				
1.17	Establish, maintain and strengthen as appropriate an organisational structure that defines roles and responsibilities, authority to implement the ESMS. Specific personnel with clear lines of responsibility and authority should be designated.	After completion of the construction in first three Lots, a member of Social Team who was in charge with supervision of the Contractors in Lot 1 & 2, has been assigned for her new role to support to RAP / LRP studies within Social Team. This action responds to the previous finding that additional human resources were required to assist in the timely delivery of social impact mitigation commitments. Additionally, external consultants the Solo Institute have been brought on board to prepare an emergency response plan for directly affected communities; see below. There is a continued focus by TANAP on Operational Readiness and handover of assets from the construction phase to the operations. Existing management systems are being utilised as a basis for transition to the operations and the QHSSE team on the Project are	**FC**	Whilst this has been found to be fully compliant an observation has been made as follows: It is recommended that TANAP review the use of Project OH&S to provide oversight to the Operations as this can put stress on the Project OH&S team, as the
1.18	Personnel with direct responsibility for E&S			

	performance must have the appropriate knowledge, skills, and experience necessary to perform their work, including implementation of the measures and actions in the ESMS and current knowledge of host country regulation and the requirements of PS1 to PS8.	assisting with this transition. The change to operations will be a key focus of the next IESC visit in November 2019. The IESC raised an observation that the use of Project OH&S to provide oversight to the Operations can put stress on the Project OH&S team, as the Project continues to require the full attention of the Project OH&S team especially at this stage of commissioning, handover and demobilisation. The use of project OH&S resources to oversee both project and operational OH&S requirements could result in a loss of focus by the team on project issues at this critical stage in the project.		Project continues to require the full attention of the Project OH&S team especially at this stage of commissioning, handover and demobilisation.
1.19	E&S process must consist of an adequate, accurate, and objective evaluation and presentation, prepared by competent professionals. External experts must assist in the risks and impacts identification process for Projects with significant adverse impacts or that are technically complex.			
Emergency Preparedness and Response				
1.20	Establish and maintain an emergency preparedness and response system.	The IESC previously recommended that TANAP appoint additional resources to assist in the timely delivery of social impact mitigation commitments, including emergency preparedness. During the site visit, the IESC was informed that Emergency Preparedness will be delivered during the Operations phase by the Health and Safety team based at TANAP Headquarters in Ankara and that this team is already in place. In addition, there will be QHSSE specialists based on site during operations who will be under the management of the QHSSE team in Ankara.	**PC**	Complete preparation of the emergency response plan for directly affected communities.
1.21	Assist potentially affected communities and local government with preparations			

	to enable effective response to emergency situations (if applicable). Where local government agencies have little or no capacity to respond effectively, the Client will play an active role in preparing for and responding to emergencies associated with the Project. Document and disclose to Affected Communities and government agencies.	Additionally, the Solo Institute has been engaged to prepare an emergency response plan for directly affected communities. Objectives of the study are to: • Determine areas of operational risk in communities and settlements with regards to AGIs and the pipeline, based on risk classification; • Assess emergency scenarios; • Develop emergency management strategies; • Reveal the capacity of local emergency responders; and • Suggest actions to be taken. This work has commenced, and a draft report is due in mid-late June 2019.		
Monitoring and Review				
1.22	Establish procedures for monitoring and measuring effectiveness of the management programme and compliance with legal/contractual obligations and regulatory requirements. Include representatives from Affected Communities in the monitoring activities (where appropriate). Retain qualified external experts to verify monitoring information.	Since 2017 TANAP has undertaken 1 annual compliance review and 3 site inspections annually in all Lots, at all stations and for the off-shore section of the Pipeline. These have considered whether Contractors have been implementing Management plans and Method Statements correctly. In 2019 there will be only one site inspection as well as the compliance review and these are no longer applicable for Lots 1, 2 and 3 where construction is complete. Audits are planned for Lot 4, stations, offshore and Telecom/SCADA. TANAP has Contracted various companies to undertake on-going environmental monitoring and review during the Operations Phase of the Project. Sustainability Pty Ltd will continue in its role undertaking Independent Environmental, Social and Safety monitoring and consultancy on a biannual basis to meet Lender requirements until 2020. The third party E&S monitoring and analysis that has been conducted by Çinar during the Construction Phase, will be undertaken on a monthly basis by ENVY from the end of 2019,	**FC**	Whilst this has been found to be fully compliant an observation has been made as follows: TANAP must continue to work closely with Contractors to ensure that any reinstatement defects that are identified through the third party or Contractor monitoring

1.23	Use inspections and audits to verify compliance and progress toward desired outcomes. Document results and corrective and preventative actions implemented and followed up.	moving into the Operations Phase. This will primarily be to inform TANAP of its ongoing environmental performance and compliance (not for Lenders), although ENVY will consider both the Turkish regulatory and IFI requirements as part of their scope of work. Çinar will remain on the Project to produce the annual GHG Report and Continuous Emissions Monitoring System Verification Report. During this site visit, the IESC observed a very high standard of reinstatement at all KPs visited in Lot 4. Especially noted were excellent re-contouring, erosion control and revegetation. The EPC Contractors will remain liable for any defects or reinstatement issues identified (by Çinar or ENVY) within their warranty period. Contractors are required to produce and submit Aftercare and Monitoring Plans to TANAP for approval to outline how they will ensure that any defects are detected and addressed. During the June 2018 Monitoring site visit, the IESC observed an area of overspill adjacent to the reinstated RoW, where erosion control measures had not been implemented and there was still a lack of vegetation. In addition, the IESC observed erosion/scour of a reinstated river bed and bank protection at a river crossing. Both of these observations were at KP 1257. TANAP has advised that these issues are have been registered on and are being tracked through the Provisional Acceptance Defect List. This therefore requires the Contractor to follow up and repair the defects within the warranty period to relevant design and Project specifications. In the Çınar quarterly E&S monitoring report for November 2018 to January 2019, dates of completion are given for both these defects as 31.10.2018. Furthermore, the Tekfen Monitoring and Aftercare Report for Lot 3 (March-April-May) provides photographic evidence to verify that both of these issues have been addressed. However, taking 5 months to make these repairs may have resulted in the erosion and scour observed at the reinstated river crossing being exacerbated (especially as a result of any heavy rainfall), and the farmer who was cultivating the land at the foot of the overspill slope not being able to effectively plough his field for a season due to rock migration. The Tekfen Plan for Reinstatement Aftercare, Monitoring and Corrective Actions During Warranty Period (TKF-PLN-CVL-PL3-006), states that corrective actions will be implemented as required and agreed with TANAP. The IESC recommends that TANAP continues to work closely with Contractors to repair any reinstatement defects that are identified in a timeframe that is commensurate with the risks. Re-instatement of		process are repaired in a timeframe that is commensurate with the risks. Particular attention should be given to reinstating overspill areas.
1.24	Relay the effectiveness of the ESMS to senior management on a periodic basis. Senior management should take appropriate steps to ensure that the intent of the client's policy is met, the ESMS is being implemented and is effective.			

		overspills was also highlighted to the IESC during the site visit as a major concern for TANAP going forward. As such, it is recommended that particular attention is given to working with Contractors to ensure that overspills are reinstated, in an appropriate timeframe. FERNAS has been awarded a ROW restoration and vegetation maintenance management and snow removal contract, which will incorporate performing any minor repairs that are not the responsibility of the Contractor. There will also be an Emergency Repair Contract in place for any major repairs beyond the 2 year Contractor warranty period, however, this has not yet been awarded.		
Stakeholder Engagement				
1.25	Stakeholder engagement is an ongoing process that may involve the following elements: • stakeholder analysis and planning; • disclosure and dissemination of information; • consultation and participation; • grievance mechanism; • ongoing reporting to Affected Communities.	Stakeholder engagement is being carried out in accordance with the Stakeholder Engagement Plan (SEP) of September 2018 (TNP-PLN-SOC-GEN-001-P3-4). The SEP describes responsibilities for TANAP, CCs and LRE for the construction phase, and provides for the updated RAP-specific stakeholder engagement provisions and post-construction RAP-related engagement (Annex 2), and analysis, methods and engagement activities and monitoring during the operations phase of the Project (Annex 3).	**FC**	

1.26	Identify stakeholders, including Affected Communities, and consider external communications to facilitate a dialog with them.	This monitoring visit included interviews with community members associated with loss of land (owners and users) to AGIs and to the pipeline. Across all interviewees, received good feedback on accessibility and responsiveness of CLOs to any community concerns/issues. The TANAP Social Specialists and the CC's CLOs continue to provide opportunities for ongoing identification of stakeholders. This includes recent efforts to continue to reach vulnerable households and provide timely information appropriate to the stage of the Project in affected communities. However, it is noted that engagement and information disclosure also must remain sensitive to the needs of stakeholders as well as the Project. Feedback in interviews included that due to the current cultivation season, stakeholders noted that they have received disclosure materials however "hadn't had a chance to read it yet". RAP Fund targeted community meetings have been completed in Lots 2, 3 and 4 while the meetings in Lot 1 were delayed to prioritise land exit meetings. Delivery of information and materials on RAP Fund was combined with the land use awareness raising meetings. 62 meetings were held in this format. As at March 2019, 70% of the settlements in Lot 1 were informed about the RAP Fund. It is noted that there have been no RAP Fund claims or requests, rather, land use restrictions and claims for additional compensation (expropriation of land) due to slope-breakers was most commonly requested (i.e. RAP Fund does not appear to be an item of *current* concern in those communities). Lastly, it is noted that efforts to engage rural women have been increased. Specific focus group discussions (FGDs) have been held with rural women to ensure their participation in the decision-making process on community support. FGDs were held in January and February 2019 in all AGI-affected settlements where social support at the community level will be delivered as a livelihood assistance and/or benefit sharing. In total, 112 local women participated in the FGDs. This targeted engagement is commended.	**FC**	This IFC PS was fully compliant, however there is an observation as follows: There is a need to maintain efforts in stakeholder engagement (SE) and information disclosure (ID). The Project construction is nearing completion; however, impacts are ongoing in active work areas. The Project's SE and ID needs to continue to respond to stakeholders, as well as Project, needs.
1.27	Develop and implement a SEP tailored to the characteristics and interests of the Affected Communities. Include differentiated measures to allow effective participation of those identified as disadvantaged or vulnerable.			
1.28	Where the Project location is not known, prepare a stakeholder engagement framework including general principles and strategy to: • identify Affected Communities and other stakeholders; and • plan for an engagement process.			
1.29	Disclose information on the purpose, nature, scale of the Project, duration of activities, risks and impacts on	Information disclosure continues, including the commencement of distribution of leaflets with land exit, a disclosure announcement on LRAP monitoring on the TANAP website, and to participants of the Annual Stakeholder Meeting (where each stakeholder	**FC**	See 1.26

	communities, the envisaged stakeholder engagement process and grievance mechanism.	participant received a written information package comprising a Project Leaflet in Turkish). Interviewees during this visit confirmed that brochures have received materials although this does not always ensure it is read (see above).		
1.30	Undertake a consultation process that provides Affected Communities with opportunities to express their views on Project risks, impacts and mitigation measures.	The SEP identifies the consultation processes associated with the Project for TANAP, while each of the Construction Contractors is responsible for developing, delivering and periodically reviewing their own Community Relations MP. These plans address engagement activities, responsibilities and interfaces, monitoring and reporting, and grievance management. In the 9th Quarter to March 2019, key engagement actions have included: • Annual Stakeholder Meetings conducted in January 2019; • Engagement with directly affected communities on the future of the construction camps (MoC process completion) • RAP Fund engagement meetings (combined with land exit engagement in LOT1) • AGI-affected settlement engagement on community-based livelihood support options • Monitoring of LRAP beneficiaries. Second round of land exit negotiations completion (except for a small number of villages in Lot 1).	**FC**	
1.31	Conduct an Informed Consultation and Participation (ICP) process for Projects that	Separate meetings are being held periodically with women and vulnerable households in the Project Area. TANAP has made efforts in continuing to identify vulnerable people; who are affected by land take for the pipeline and its construction; this includes engagement with each of the	**FC**	

	may have significant adverse impacts.	Muhtars in affected communities to facilitate this. It is noted that AGI-affected vulnerable people have been identified through the LRP and included in the LRAP. Field studies for identification of pipeline-affected vulnerable people is scheduled for June 2019 at which time the consultant will be engaged, with a scope that is to include livelihoods monitoring.		
1.32	Conduct an ICP process for Projects that may have adverse impacts to Indigenous Peoples. In certain circumstances the client may be required to obtain their free, prior and informed consent (FPIC) (refer PS 7).	The requirements of PS7 are not triggered by the Project.	**FC**	
1.33	When stakeholder engagement is the responsibility of the host Government: • collaborate with the responsible agencies (to the extent permitted) to achieve outcomes consistent with the objectives of this PS. • play an active role in engagement planning, implementation planning and monitoring (if	The previous monitoring visit identified that a change management process was required to consult affected stakeholders on the change in land use of six temporary construction camps. TANAP conducted a study to inform affected communities and stakeholders to evaluate social impacts of the six camp sites that TANAP handed over to institutions (including AFAD and Special Provincial Administration agencies) at the completion of construction phase. Engagement included community level engagement meetings, local authority meetings and face to face interviews relating to the 19 affected settlements. Attendees from the proponent side included experts from the Çinar, BOTAS and TANAP teams. Future uses of camp facilities have been determined that offer continuation of economic contributions to those areas. Annual monitoring has been agreed to be conducted in mid-2020.	**FC**	

	Government capacity is limited). • conduct a complementary process when the Government-led process does not meet the relevant requirements of this PS.			
External Communications and Grievance Mechanisms				
1.34	Implement and maintain a procedure for external communication.	Improvements in grievance management was completed. Refresher OSID training was designed and conducted at MS2/CS5, MS1/CS1, Lot 4/Spreads 7&8, and MS3/MS4 in February and March 2019. This included a review of categorisations and descriptors of issues. The Online Stakeholder Interaction Database document (TNP-GUI-SOC-GEN-001) was also revised to update the categorisation of grievance data in the database. The IESC observes that the resources and systems to support the work needs to be maintained from transition to operations, including the IT systems to ensure construction data is accessible into operations, as well as the 'corporate memory' for addressing post-construction issues. IT systems includes access to the OSID database.	**FC**	This IFC PS was fully compliant, however there is an observation as follows: IT systems need to remain accessible during the transition into operations, including OSID for stakeholder engagement and grievance management.
1.35	Establish a grievance mechanism to receive and facilitate resolution of Affected Communities concerns about the Project's environmental and social performance.	TANAP has focused efforts to reduce the complaint response period and the procedure to monitor complaints. TANAP reports that since the previous visit, 311 grievances have been received (151 on reinstatement) and 163 remain open (101 of these relate to reinstatement). A total of 147 have been closed. The IESC commends ongoing focus on resolving complaints as per procedure and Project commitments. From Project commencement to 15 March 2019, 4,459 complaints have been received, 95% of which (4,253) are closed. 4% (170) are open and 1% (36 records) are at waiting	**FC**	

		status. The most frequent issues recorded in the Q9 reporting period are reinstatement and damage to crops and land, reflective of the Project activities of the period.		
1.36	Provide periodic reports (not less than annually) to Affected Communities that describe progress with implementation of Project Action Plans on issues of ongoing risk or impact on Communities and on issues that are of concern to Affected Communities. Communicate material changes or additions to mitigation measures or actions described in the Action Plans to Affected Communities not less than annually.	Annual stakeholder meetings were held in December 2018 and January 2019 involving 146 attendees across four provinces, detailed in report TNP-STT-SOC-GEN-002. Approximately 150 participants who attended from different interest groups, including the governor's officers, local authorities/institutions, provincial directorates, district governorships, mayor representatives, BOTAS LRE Representatives, muhtars and community members from directly affected settlements. TANAP experts responded to various questions on topics such as pipeline construction works, operating period plans, reinstatement of land, and investment programs, creating a general information session. All mukhtars of the Project-affected settlements were invited to the meetings and CLOs of Lot 4 were asked to assist in accessing and inviting absentee landowners who are not permanent residents for the meetings.	**FC**	

PS 2: Labour and Working Conditions				
Working Conditions and Management of Worker Relationships				
2.8	Adopt and implement appropriate human resource policies and procedures that set out the approach to managing workers in line with national law and PS2.	TANAP through its HR function continues to use third party labour audits by Practical Solutions to verify contracted labour is being managed in accordance with TANAP's standards, Project lender standards and requirements, and national law. The Working Hours Action Plan (TNP-STR-PRM-GEN-003_23.03.2019) has been updated with Q4/2018 data, which provides analysis on actions taken to identify and address instances of overtime working. Analysis identified that in most cases overtime was within legal limits however improvements in overtime management measures were not effective in 5 instances (i.e. a minority) in the last quarter 2018. The majority of workers have now been demobilised so while overtime work monitoring has concluded, third party auditing by Practical Solutions continues. Lessons learned from construction phase are also to be included in operations phase to avoid overtime working in future. The Practical Solutions' audit (2019/04/03) indicates that breaches in relation to labour are predominantly open for cases which relate to subcontractor's performance and labour management. These include lack of overtime payments and payments in voucher instead of cash to workers and have been followed up in writing. Quarterly monitoring by Çinar (CIN-PRQ-PRC-GEN-025, March 2019) reports on the Retrenchment Management Plan that retrenchment is managed strictly in accordance with the Turkish laws and regulations and Project requirements. Notice period is followed, and all compensation related to dismissal of workers is paid in accordance with laws and regulations. Workers are informed about retrenchment verbally or written and supported in applying for unemployment salary and/or retirement insurance. TEKFEN monitors the retrenchment process of its sub-Contractors by reviewing dismissal documents submitted to TEKFEN monthly. In March 2019 it was reported that Tekfen retrenched a total of 321 workers in November, 315 in December 2018 and 300 in January	**FC**	
2.9	Provide workers with clear and understandable, documented information regarding their rights under national labour and employment law and any applicable collective agreements including rights related to: hours of work, wages, overtime, compensation, benefits upon beginning the working relationship, and when any material changes occur.			
2.10	Respect collective bargaining agreements with workers' organisations. Provide reasonable working conditions and terms of employment where collective		**FC**	

	bargaining agreements do not exist, or do no address working conditions and terms of employment.	2019 due work completion at MS-4 and MS-3 stations. It was reported that although the retrenchment process was followed correctly by Tekfen, that grievances were raised by workers of sub-Contractors regarding the unpaid salaries in the monitoring period. Those grievances were registered in OSID and have since been closed when payments were made to workers. Interviews conducted with workers during this monitoring visit reflect findings of third party monitoring, and demonstrated that workers' have knowledge of and use the grievance mechanism when they have any issues to raise; that the workers interviewed did not experience any instances of unpaid / late paid overtime themselves; and that the demobilisation process was understood, including that information had been shared and expectations made clear, including an understanding of the limitations of ongoing employment. Positive feedback was received by the IESC from all of those workers interviewed.		
2.11	Ensure migrant workers are identified and engaged on substantially equivalent terms and conditions to non-migrant workers carrying out similar work.			
2.12	Where accommodation services are provided to workers: Implement policies on quality and management of accommodation and provision of basic services. Provide services consistent with principles of non-discrimination and equal opportunity. Allow workers' freedom of movement or association.		**FC**	
2.13	Allow workers to develop alternative mechanisms to express their grievances and protect their rights regarding		**FC**	

	working conditions and terms of employment.			
2.14	Do not discourage, discriminate or retaliate against workers from electing worker representatives, forming or joining workers organisations, and from collective bargaining. Engage with workers' representatives and workers' organisations and provide information needed for negotiation in a timely manner.			
2.15	Adopt the principles of equal opportunity and fair treatment with respect to employment relationship. Take measures to prevent harassment, intimidation and exploitation especially against women. Apply principles of non-discrimination to migrant workers.	All Project employment contracts reflect TANAP labour policies that include fair work and non-discriminatory employment practices.	**FC**	
2.16	Comply with national law that requires non-discrimination or if law silent then comply with PS2.			

2.17	Measures to remedy past discrimination or selection are not be deemed as discrimination, if consistent with national law.			
2.18	Analyse alternatives to retrenchment, prior to implementing collective dismissals. Where retrenchment is unavoidable, develop and implement a retrenchment plan to reduce the impacts of retrenchment on workers. Base the retrenchment plan on the principle of non-discrimination, consultation undertaken with affected parties (workers, organisations and government) and legal, contractual and collective bargaining requirements.	The Project workforce continues to demobilise. The TANAP Integrated Project Management Team (IPMT) now has 548 people, plus 56 in the EPCM Worley Parsons, while Lot 4 (Panj Lloyd plus subcontractors) have 870 and the stations workforce (Tekfen plus subcontractors) comprises 2,092 people. In total, 3,566 workers (as at 30 April 2019). Since October 2018, 253 were demobilised from the IPMT, 2,013 were demobilised from Lot 4 and 4,600 demobilised from Stations (total 6,866). Çinar's monitoring of implementation of the Retrenchment Management Plan has continued to verify compliance with Turkish laws and regulations and Project requirements. The IESC is satisfied that there is adequate monitoring of retrenchment processes and that any issues are being raised and closed out in line with Project requirements. See additional comments on retrenchment above. The IESC notes ongoing capacity building that has occurred in the Project, including for example upskilling of eight local workers who will continue with Tekfen into new Projects with welding expertise developed on the TANAP Project, thus avoiding retrenchment. Interviews highlighted that avoidance of retrenchment is heavily dependent on the timing and existing future contracts of the construction Contractors; few are in Turkey.	**FC**	
2.19	Provide workers with notice of dismissal and severance payments in a timely manner. Pay outstanding pay, benefits and contributions on or before termination, for the benefit of the worker or in accordance with a collective agreement.			

<table>
<tr><td></td><td>Provide evidence of such payments to the workers.</td><td></td><td></td><td></td></tr>
<tr><td>2.20</td><td>Provide a grievance mechanism for workers to raise workplace concerns. Inform workers of the grievance mechanism when recruited and make it easily accessible. Address concerns promptly using a transparent process that provides timely feedback, without retribution. It will not impede access to judicial or administrative remedies.</td><td>Worker grievance mechanisms are in place at all Project work sites. Çinar's Quarterly monitoring report (CIN-PRQ-PRC-GEN-025) indicates that in monitoring the Employment and Training Plan, that 8 worker grievances were registered in OSID system in the monitoring period to March 2019, which predominantly raised the issue of unpaid salaries, which were followed up and those grievances closed. No worker strike was recorded in the monitoring period.

The current worker grievances (since the previous visit) are shown in the following table:

<table><tr><th>Worker Grievances</th><th>Received</th></tr><tr><td>Employee Wage/Overtime Payments</td><td>23</td></tr><tr><td>Unfair Dismissal</td><td>3</td></tr><tr><td>Living Conditions</td><td>6</td></tr><tr><td>Working Conditions</td><td>1</td></tr><tr><td>Total</td><td>33</td></tr></table>
Tekfen indicated that all 43 worker complaints at CS5/MS2 and 15 at MS4 had been registered in OSID and closed.</td><td>FC</td><td></td></tr>
<tr><td colspan="5">Protecting the Workforce</td></tr>
<tr><td>2.21</td><td>Children will not be employed in a manner that is economically exploitative, hazardous, interferes with their education, or harmful to health or their physical, mental, spiritual, moral or social</td><td>Third party audits undertaken by Practical Solutions focus on the compliance of Contractors with the Turkish Labour Code, Social Security and General Health insurance Law and associated Regulations. The audits verify that

no workers under the age of 18 years were employed as at the previous audit.</td><td>FC</td><td></td></tr>
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	development. Comply with national laws. Under 18s will not be employed in hazardous work. Identify persons under the age of 18 and undertake an appropriate risk assessment and regular monitoring of health, working conditions and hours of work.	The audits verify that workers are engaged in accordance with legal obligations in Turkey which prohibits forced labour and employment of trafficked persons.		
2.22	Forced labour will not be employed, whether involuntary or compulsory. Do not employ trafficked persons.			
OHS				
2.23	Provide a safe and healthy work environment that takes account of inherent risks and hazards and threats to women. Minimise the cause of hazards (as far as practicable) to prevent accidents, injury and disease. In line with GIIP, including WBG EHS Guidelines, address areas including: ◦ identification of potential hazards to workers (especially life threatening);	The IESC observed good general compliance to OH&S requirements and TANAP standards across all the sites visited with work observed being conducted safely and with the necessary controls in place. Where minor OH&S issues were observed, they were rectified immediately or within a very short timeframe with evidence provided to the IESC. Chemical storage remains a concern to the IESC with the following partial compliances identified across in CS5: • Inconsistent chemical compatibility assessments for storage locations • Non-compatible chemicals stored together • Outdated MSDSs A concern to the IESC is that this is a repeat finding from the last assessment.	**PC**	**Chemical Storage** Chemical storage is deemed partially complaint, it is therefore recommended that TANAP undertake chemical storage compliance assessments across all sites to ensure: • chemical compatibility assessments for storage locations

	• provision of protective and preventive measures (modification; • substitution/elimination of hazardous conditions or substances); • training of workers; documentation and reporting of accidents, diseases and incidents; and • emergency prevention, preparedness and response arrangements.	The IESC raise an observation that the use of Project OH&S to provide oversight to the Operations can put stress on the Project OH&S team, as the Project continues to require the full attention of the Project OH&S team especially at this stage of commissioning, handover and demobilisation. The IESC raise an observation that Isolation and Lockout observed was in compliance with TNP-PCD-GEN-002 Lock-out & Tag-out Requirements and TNP-PCD-HSM-GEN-037 Energy Isolation Procedure but was not best practice. Best practice is for all people working on an isolation to use personal locks. Whilst being found fully compliant with the Procedure implemented by the Project, an opportunity for improvement is recommended as follows: isolation and lockout requirements noted in TNP-PCD-GEN-002 Lock-out & Tag-out Requirements and TNP-PCD-HSM-GEN-037 Energy Isolation Procedure be reviewed against industry best practice to consider the use of personal isolation locks.		• Only compatible chemicals are stored together • MSDSs are in date and in Turkish
Workers Engaged by Third Parties				
2.24	Take commercially reasonable efforts to ensure third party employers are reputable and legitimate and have an appropriate ESMS to allow them to operate in accordance with the requirements of this PS (except paragraphs 18-19 and 27-29).	All parties have access to the grievance mechanism. TANAP have driven the use of HS management systems by the Contractors. This fundamentally revolves around the setting of the standard and contractually requiring the Contractors to be compliant with the standards. TANAP have developed an HS team whose primary responsibility is to ensure that the standards are maintained. The HS team have a governance / assurance role. i.e. TANAP set the standard and then ensure that the standard is being complied with.	**FC**	
2.25	Establish policies for managing and monitoring the performance of third party		**FC**	

	employers in accordance with PS2 and where commercially reasonable, incorporate these in contractual agreements.			
2.26	Ensure that contracted workers have access to a grievance mechanism, either provided by the third party or by the company.		**FC**	
Supply Chain				
2.27	Monitor the primary supply chain to identify risks and incidents of child and forced labour and take steps to remedy them.	Monitoring for child/forced labour and unsafe work practices were identified and undertaken during the ESIA process for higher risk suppliers such as pipe suppliers.	**FC**	
2.28	Introduce procedures and measures to ensure primary suppliers are taking steps to prevent or correct life-threatening situations.			
2.29	Where child/forced labour and significant safety risks cannot be remedied, shift the primary chain to suppliers that can demonstrate compliance with this PS.			

PS3: Resource Efficiency and Pollution Prevention				
3.4	During Project life-cycle: consider ambient conditions, apply technically and financially feasible resource efficiency and pollution prevention principles, tailor principles and techniques to hazards and risks associated with Project's nature and consistent with GIIP including WBG EHS Guidelines.	The principles of resource efficiency were suitability identified during the ESIA process. The Compressor Stations (CSTs) will be a major emitter of GHGs during operation of the pipeline, as identified in the ESIA. A Best Available Technology (BAT) assessment was conducted prior to construction and provided sufficient detail so as to verify that EBRD guidance requirements were met in relation to how the adoption of resource efficiency and waste reduction considerations helped to define the technology chosen in the CSTs. The BAT included detail on the realisation of the energy savings that are possible because of the adoption of BAT for the CSTs. In order to track GHG emissions generated as a result of Project activities during construction, TANAP has implemented a monthly reporting framework that consolidates Scope 1 and 2 emissions data from direct TANAP sources and EPC Contractors. TANAP has produced an Annual GHG Emissions Report for the Construction Phase (2018) and this shows that the Project generated 71,646.05 t CO_2 eq during 2018 (scope 1 and 2 emissions), which represents a 44% decrease in emissions compared to 2017. There are a number of assumed reasons for the decrease, including that Phase 0 construction activities were completed in July 2018 and a number of Camps were closed; resulting in a significant decrease in diesel consumption relating to the use of Project vehicles and equipment, as well as heating. In addition, the offshore section was completed in August 2018 reducing the emissions from vessel activities.	**FC**	
3.5	Refer to the EHS Guidelines or other internationally recognised sources when evaluating and selecting resource efficiency and pollution prevention and control techniques. Achieve whichever levels and measures is the more stringent of host country regulations and the EHS Guidelines.			
Resource Efficiency				
	Implement technically and financially feasible and cost effective measures for improving efficiency in	The principles of resource efficiency were suitably identified during the ESIA process. See 3.7 – 3.9 of Appendix 1 for further information.	**FC**	

3.6	consumption (energy, water, and other resources and material inputs). If available, make comparison to establish relative level of efficiency.			
3.7	Consider alternatives and implement feasible options to reduce Project-related GHG emissions during design and operation (including Project locations, renewable or low carbon energy sources, agricultural, forestry and livestock management practices, reduction of fugitive emissions and gas flaring).	The primary source of emissions during the operations phase are the compressor stations (CS) and other AGIs such as BVS and MS. Project vehicles will generate further emissions during the remainder of construction work and beyond. CST-1 & CST-5 will be in Operation during Phase 1 (operations) and during Phase 2, CST3 and CST-7 will be utilised. Due to the combustion of natural gas used in the CSs, nitrogen oxides (NOx) and carbon monoxide (CO) are the primary pollutants emitted with sulphur dioxide (SO2) and particulate matter (PM) emitted in lesser volumes. As part of the Operational Pollution Prevention Plan (TNP-PLN-ENV-GEN-009), TANAP will implement mitigation measures related to GHG from CSs and other AGIs including: • Ensuring efficient natural gas combustion within compressor stations; • Preventive maintenance programmes on plant and equipment responsible for generating emissions; • Monitoring emissions and air quality to ensure compliance with relevant standards and, as necessary, identify the need for corrective actions; • Procurement and uninterrupted delivery of optimum fuels (as feasible) for plant and equipment; and • Ensuring environmental emissions are appropriately considered as an integral part of any changes to Operations. TANAP have employed mitigation measures to reduce GHG emissions from vehicles such as:	**FC**	

		• Use of low emission Project vehicles; • Regular vehicle maintenance including exhaust checks; • Economic driving practices including excessive idling restriction; and • Exhaust emissions from construction and transportation vehicles will be monitored in six monthly periods, these vehicles will have the exhaust gas emission certificate from the Ministry of Environment and Urbanisation.		
3.8	If expected to produce more than 25,000 t CO2-equivalent annually, quantify direct emissions from facilities owned or controlled within physical Project boundary and indirect emissions associated with off-site production of energy used. Conduct emissions' quantification annually in accordance with internationally recognised methodologies and good practice.	The TANAP Project is expected to produce more than 25,000 t CO2-equivalent annually. TANAP has been calculating and reporting annual Construction phase GHG emissions since Q1 2018 (for 2017 GHG emissions). TANAP will continue to produce annual GHG emissions reports for the construction phase until construction is completed. The total emissions (scope 1 and 2) generated by TANAP during construction in 2018 were calculated as **71,646.05 t CO_2 eq** as reported in the *2018 Annual GHG Emissions Report for the Construction Phase (*28.03.19). This was based on the following methodologies: • IFI Framework for a Harmonised Approach to GHG Accounting (2012); • IFC Performance Standards – PS3 Resource Efficiency and Pollution Prevention (2012); • EBRD Greenhouse Gas Assessment Methodology (2010); and • Greenhouse Gas Protocol guidance notes & tools. Çınar has been appointed by TANAP to compile GHG emissions for the Operations phase of the Project. Çınar has prepared a Greenhouse Gas Emissions Estimation Methodology document; based on the IFI Framework for a Harmonised Approach to GHG Accounting. The first annual operational Scope 1 and 2 emissions were estimated using this	**FC**	

		methodology and reported in March 2019, for the Project's operations in 2018, being **19,027 t CO_2 eq**.		
3.9	When a potential significant water consumer, adopt measures that avoid or reduce water usage to do not have significant adverse impacts on others (including use of additional technically feasible water conservation measures, alternative water supplies, consumption offsets to reduce total demand and alternative Project locations).	The principles of resource efficiency were suitably identified during the ESIA process. A groundwater sustainability study was prepared by a third party professional for MS2, which was submitted for review and approved by TANAP.	**FC**	
Pollution Prevention				
3.10	Avoid release of pollutants or, when not feasible, minimise and/or control intensity and mass flow of release. Applies to air, water and land due to routine, non-routine, accidental circumstances within local, regional and transboundary impacts.	**Air** TANAP has developed and implemented Key Performance Indicators (KPIs) in relation to air quality, which are reported on a monthly basis to monitor Contractor performance in relation to this topic. KPIs include: • % of air quality test results compliant with legal standards; • # of tests carried out near sensitive receptors; • # of complaints received related to dust, and/or odour; and • % of non-compliances raised by TANAP which are closed within agreed timeframe.	**FC**	Whilst this has been found to be fully compliant an observation for topsoil management has been made as follows: A topsoil stockpile at the DSW has been highly compacted (and likely to result in anaerobic conditions). TANAP should work with PLK to ensure that the necessary actions are taken to

		During the previous site visit, the IESC noted that third party monitoring had indicated some incidents of dust measurements exceeding Project standards at or near active work sites. The latest Çınar quarterly monitoring report for November 2018 to January 2019 (which only covers Lot 4 and AGIs, as operations had begun in Lots 1, 2 and 3) states that there have been no complaints relating to dust emissions from local communities and the results of monitoring tests were 100% compliant with the Project standards. There is an open complaint relating to dust emissions in Lot 4 from a landowner who claims that the yield from his walnut orchard has been affected by dust generated by Project vehicles. There is no way to verify his claim that his yield had dropped by 600 kilos in 2 years, as he had already harvested his crop when he filed the complaint. This issue is ongoing and will be followed up by the IESC during the next site visit. There have been no other complaints relating to dust in Lot 4. **Potable Water** Potable water at the MS2/CS5 site is sourced from boreholes (for which TANAP has an abstraction permit). The water is treated in a Cooking Water Treatment Until which incorporates a sand filter, carbon filter, reverse osmosis and UV treatment. It is then passed through a water softening unit. Potable water quality is sampled and analysed on a monthly basis to ensure that both regulatory quality standards and Project standards are being met. There have been no exceedances of water quality parameters at the MS2/CS5 site. At MS3, there are no available groundwater sources, therefore potable water is supplied by tanker from the Kavakköy municipality. Potable water is supplied to MS4 via a water transmission line from the Sarıcaali Village well. According to the latest Çınar quarterly monitoring report for November 2018 to January 2019, potable water samples taken from the MS3 and MS4 camp sites complied with the Project standards. **Wastewater** At MS2/CS5 there is a biological wastewater treatment plant (WWTP) in operation. The IESC did not have the opportunity to visit the WWTP at this site. If the capacity of the		restore the condition of this topsoil to its original state and consideration should be given to protecting the soil from erosion by the use of covers given the windy conditions at this site.

		plant is exceeded, then wastewater is taken by tanker to the municipal wastewater treatment plant at Eskişehir. The Environmental Permit that is in place for wastewater discharges includes biological WWTP as well as vehicle washing discharge water and the backwash water of the WWTP. Following treatment effluent is discharged to Fırıncıbaşı creek through an 11 km discharge pipe. According to the latest Çınar quarterly monitoring report for November 2018 to January 2019, wastewater samples taken from the discharge point of the treatment plant by TEKFEN were compliant with Project standards. Hydrotesting has all been completed at this site. Hydrotest wastewater was collected in a retention pond and treated as necessary to meet discharge criteria in compliance with Turkish regulations and Project Standards. The effluent from the retention pond is also discharged into Fırıncıbaşı creek. If any non-compliances in water quality are identified, wastewater is taken by tanker to either the industrial or domestic municipal wastewater treatment plant at Eskişehir (depending on the composition). At the MS4 site, there is an operational biological wastewater treatment plant that receives all site drainage (capacity of 110m^3/day, designed for 450 people). The IESC had the opportunity to visit the WWTP during the site visit. Once treated, effluent is discharged to the concrete lined DSI channel and ultimately into the Meric River. The channel runs adjacent to rice fields. The IESC was informed that the quality of the effluent would be high enough for irrigation purposes. The sludge from each tank is sampled for quality analysis daily and effluent quality sampling and analysis is undertaken monthly at the point of discharge in accordance with Project requirements (which are higher than regulatory requirements that would only require effluent sampling on a quarterly basis). According to the latest Çınar quarterly monitoring report for November 2018 to January 2019, the total nitrogen parameter exceeded the threshold limit value in December 2018 and January 2019. TANAP have asked Tekfen to control the dissolved oxygen level effectively and take additional samples to verify that this has resolved the issue. **Topsoil Management** Topsoil has now been replaced on the RoW as part of reinstatement works at those KPs observed during the site visit. However, where topsoil was still being stored in stockpiles at MS2 and MS4, management processes were observed by the IESC to be following best		

		practice and are in accordance with the Erosion, Reinstatement and Landscaping Plan (PLK-PLN-ENV-PL4-002) for Lot 4. Stripped topsoil (to a depth of 30cm) was being stored in stockpiles that did not appear to be more than 2.5m in height and with side slopes of <45o. The stockpiles were clearly labelled as topsoil in both Turkish and English. The soil had been seeded with local plant species to encourage vegetation growth and prevent erosion, however, where the soil was exposed, covers had been used. The stockpiles were drained with open ditches and protected either by fencing or barricading from encroachment by vehicles or other Project equipment. In accordance with the Erosion, Reinstatement and Landscaping Plan, the surface of the topsoil stockpile will be lightly compacted (a single lass of light hand compaction equipment) to reduce rainfall penetration but not enough to promote anaerobic conditions. At the DSW site, the IESC observed a topsoil stockpile that was highly compacted, unlabelled and uncovered, as shown in Figure 3. The IESC was informed that this pile had been moved 2 weeks previously and would be used to stabilise the banks around the pigging station. There were no plans to cover the soil but there was an intention to label it. The compaction was considered by the Contractor (PUNJ LLOYD-LIMAK JOINT VENTURE (PLK) E&S Representative on site to be a good thing, as it would prevent wind erosion of the soil. However, this level of compaction is likely to result in anaerobic conditions, destroy the biological content of the soil and prevent natural revegetation. The Erosion, Reinstatement and Landscaping Plan requires that Contractors will ensure the integrity, fertility and quality of topsoil throughout [stripping] storage [and reinstatement] and if there are degradations in the topsoil's quality, the Contractor will restore the quality to its original state. It is recommended that TANAP works with PLK to ensure that the necessary actions are taken to restore the condition of this topsoil to its original state and consideration should be given to protecting the soil from erosion by the use of covers given the windy conditions at this site.		

		Figure 3 Poor topsoil stockpile management at DSW 		
3.11	Consider relevant factors to address potential adverse Project impacts on existing ambient conditions: existing ambient conditions; finite assimilative capacity of the environment; Project's proximity to areas of importance to biodiversity; potential for cumulative impacts with uncertain and/or irreversible consequences.	Adverse impacts and controls have been suitably identified during the ESIA process.	**FC**	
3.12	Avoid generation of hazardous and non-hazardous waste	Contractors have developed individual waste management plans that are aligned with TANAP's Waste Management Plan, and which will continue to be implemented during	**PC**	The lack of improvement in performance relating

	materials. Where generation cannot be avoided, reduce, and recover and reuse in a manner safe for human health and environment. Where waste cannot be recovered and reused, treat, destroy or dispose thereof in an environmentally sound manner (including appropriate resulting emissions' control and residues). When hazardous waste disposal is conducted by third parties conduct disposal, use reputable, legitimate Contractors that are licensed by relevant government agencies and obtain chain of custody documentation to the final destination. When hazardous waste disposal is conducted by third parties conduct disposal, use reputable, legitimate Contractors that are licensed by relevant government agencies and obtain chain of custody documentation to the final destination.	the remainder of the construction phase. TANAP has also developed an Operations Phase Waste Management Plan (TNP-PLN-ENV-GEN-007), which outlines waste management strategies to be implemented, including the waste management hierarchy. This Plan will apply to all operational staff, Contractors and subcontractors active at compressor and metering stations, block valve stations and other AGIs. Previous IESC Monitoring Reports have highlighted the incorrect use of waste bins by EPC Contractors on site for the allocated waste stream. The IESC is aware that TANAP has taken proactive steps to try and address this with the EPC Contractors, through training on waste management being given to every worker, a focus on waste management during toolbox talks on site and the use of posters in rest areas to remind workers to put the right waste in the right bin, as shown in Figure 4. Figure 4 Waste Management Poster at DSW  However, at all of the sites visited the IESC observed an on-going and consistent trend of poor use of the 'at source' waste segregation bins, despite the majority of bins being labelled for a given waste stream (plastic, paper, domestic, glass etc.). Incorrect use of these bins creates additional work and hazards for the waste teams to separate and sort waste at the central waste transfer facility located at each AGI work site. The lack of improvement in performance relating to this issue demonstrates that achieving a change		to the use of 'at source' segregation waste bins demonstrates that achieving a change in worker's behaviour is likely to require an even more targeted approach, with increased levels of oversight. It is recommended that TANAP/Contractors consider appointing individual workers with waste monitoring responsibilities, who could on a rotational basis be stationed near to waste bins to ensure their correct use. At the DSW site it is recommended that all waste bins either have lids or are placed within containers and that regular clean up exercises (at least weekly) are implemented to pick up any loose windblown waste across and around the site.

		in workers' behaviour is likely to require an even more targeted approach, with increased levels of oversight. It is recommended that TANAP/Contractors consider appointing individual workers with waste monitoring responsibilities, who could on a rotational basis be stationed near to waste bins to ensure their correct use. It should be noted however, that all the bins within TANAP offices at the sites visited contained the correct waste types. At the Dardanelles Station West (DSW) the IESC also observed a significant amount of windblown waste across the site and within the surrounding wooded areas, including large sheets of plastic, plastic buckets and domestic waste. This site is located near to the coast and is known for being particularly windy. However, the IESC observed waste bins in the rest area without lids. This issue could be easily improved by ensuring that all waste bins have lids and by placing waste bins within containers. Furthermore, it is recommended that regular (at least weekly) clean up exercises are implemented at this site, to pick up any loose waste. The central waste storage areas at MS2 and MS4 were observed to be well organised, with all waste streams clearly separated and labelled.		
3.13	Avoid or, when avoidance is not possible, minimise and control the release of hazardous materials; Assess production, transportation, handling, storage and use of hazardous materials; Consider using less hazardous substitutes in manufacturing processes or other operations;	The IESC observed the consistent use of drip trays to contain potential spillages or fuels or oils from generators at all of the sites visited. The floors of the central waste storage areas at MS2 and MS4 were concrete and where necessary (i.e. where waste oils were being stored) there was appropriate secondary containment in case of leaks. In addition, appropriately and adequately stocked spill kits were observed to be located around both sites and the IESC was informed that all workers were informed of their location as part of their environmental training. At the DWS site, the lid of one spill kit had been Sellotaped firmly closed, which would prevent immediate access in the event of a pollution incident. The IESC was informed that this was due to the windy conditions at this site. A better alternative, however, would be to locate the spill kit within a site container (out of the wind) and ensure that all workers are aware of its location.	**PC**	It is recommended that a concrete bund is placed around the relevant area within the MS2 Central Waste Storage Area, to contain any leaks or spills from containers being stored there that contain waste filter separation water. It is recommended that stock levels (especially of anti-freeze) are managed

	Avoid manufacture, trade and use of chemicals and hazardous materials subject to international bans or phase-outs due to high toxicity to living organisms, environmental persistence, potential for bioaccumulation or depletion of ozone layer.	One pollution prevention observation at MS4 was the storage of large plastic containers containing hazardous antifreeze without any secondary containment, located adjacent to the main site drainage channel as shown in Figure 5. The IESC was informed that the containers were there due to a lack of storage space, however, any leaks would be likely to enter the drainage system and pollute the site's biological wastewater treatment plant that collects and treats all site drainage. It is recommended that stock levels are managed to ensure that there is adequate storage space for all hazardous substances in an appropriately protected area of the site. Figure 5 Hazardous substance (Antifreeze) with no secondary containment being stored next to site drainage channel.  A further minor observation was in relation to large plastic water containers at MS2, containing waste filter separation water that could contain rust and hydrocarbons. The containers were raised off the ground on wooden pallets but there was no secondary containment. In the event that there was a leak or the containers were damaged by a forklift when they were being moved, the contents could leak directly onto the soil behind the storage area. The IESC was informed that the water was awaiting the quality analysis results to determine whether or not it could be treated by the local municipal wastewater treatment plant. As there is a risk that the water contains contaminants, it is		to ensure there is adequate storage space for all hazardous substances within an appropriately protected area of the site at MS4.

		recommended that a concrete bund is placed around this part of storage area to contain any spills.		
3.14 -17	Pesticide use and management	Pesticide use is generally restricted on TANAP construction and operational work sites. Construction Contractors control weeds on the ROW and other restored areas, and on topsoil stockpiles using mechanical means only. TANAP has reviewed Contractor construction Impact management Plans and other documentation and required that the use of chemical pesticides be removed as a method for invasive weed control as evidenced in the PLK Construction Impact Management Plan Rev4-4) applied for Lot 4 RoW. There were no pesticides being stored in the hazardous materials and chemicals stores observed at the construction sites visited by the IESC.	**FC**	
PS4: Community Health, Safety and Security				
4.5	Evaluate risks and impacts to health and safety of affected communities during Project life cycle; Establish preventive measures consistent with GIIP, such as the WBG EHS Guidelines; Identify risks and impacts and propose mitigation measures; and Measures will favour the avoidance of risks and impacts over minimisation.	Consistent with previous site visits, the key risk to community from a health and safety perspective remains to be road safety which is anticipated to continue throughout the construction to operations transition. Strong adherence to road and traffic safety was observed in accordance with the golden rules implemented. The Project demonstrated good level of operational control for road safety. Whilst limited construction remains, ensuring the community is a safe distance away from site-based also remains a key risk. Security was found to be managed well on all sites via the use of fencing with razor wire on top, electronic access control, approval to gain access and security personnel, monitoring and controlling access.	**FC**	
4.6	Design, construct, operate, and decommission the structural elements or components of the	Knowledge of the integrity of the plant from a safety perspective was queried at the stages of transfer from construction to commissioning and then transfer from commissioning / construction to operations. This was found to be controlled via the	**FC**	

	Project in accordance with GIIP, taking into consideration safety risks to third parties or Affected Communities. Consider incremental risks of the public's potential exposure to operational accidents and/or natural hazards. Structural elements will be designed and constructed by competent professionals. When structural elements or components are located in high risk locations, external experts with relevant and recognised experience must be engaged. For Projects that operate moving equipment on public roads avoid the occurrence of incidents and injuries to members of the public.	issuing of a ready to gas certificate and a ready to operate certificate respectively following an engineering assessment.		
4.7	Avoid or minimise potential for public (workers and their families) exposure to hazardous materials and substances that may be released by the Project. Where hazardous materials are part of		**FC**	

	existing Project infrastructure or components, the client will exercise special care when conducting decommissioning activities in order to avoid exposure to the community. Exercise commercially reasonable efforts to control the safety of deliveries, transportation and disposal of hazardous materials and wastes. Implement measures to avoid or control exposure to pesticides in accordance with PS3.			
4.8	Where appropriate and feasible, identify risks and potential impacts on priority ecosystem services that may be exacerbated by climate change. Avoid adverse impacts, and if these impacts are unavoidable, implement mitigation measures in accordance with PS6, paragraphs 24 and 25.	Ecosystem Services were not assessed during this monitoring visit.	Not Assessed	

	Implement mitigation measures with respect to use of and loss of access to provisioning services in accordance with PS5, paragraphs 25–29.			
4.9 - 10	Avoid or minimise potential for community exposure to water-borne, water-based, water-related, vector-borne diseases and communicable diseases that could result from Project activities, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups.	A key risk is the impact to drinking water via the release from the wastewater treatment. Assessment of the wastewater treatment processes indicated that monitoring was done by TANAP and validated by an external body. Records indicated that release did not occur if the set targets were not met. Where there was an issue with the treatment plant, wastewater was taken off site to a licenced municipal treatment facility.	**FC**	
4.11	In addition to PS1 emergency preparedness and response requirements, assist Affected Communities, local government agencies and other relevant parties in preparation to respond effectively to emergency situations especially when their participation and collaboration are necessary to respond to such emergency situations	The Solo Institute has been engaged to prepare an emergency response plan for directly affected communities. Objectives of the study are to: • Determine areas of operational risk in communities and settlements with regards to AGIs and the pipeline, based on risk classification; • Assess emergency scenarios; • Develop emergency management strategies; • Reveal the capacity of local emergency responders; and	**PC**	See 1.20

	If local government agencies have little or no capacity to respond effectively, play an active role in preparing and responding to emergencies associated with the Project. Document emergency preparedness, response activities, resources and responsibilities. Disclose appropriate information to affected communities, government agencies and relevant parties	• Suggest actions to be taken. This work has commenced, and a draft report is due in mid-late June 2019. Once completed, this emergency response plan will be available for implementation by TANAP and should provide a framework for strengthening emergency response capacity in response partner organisations and groups, where this may be required.		
Security Personnel				
4.12	When direct or contracted workers are retained to provide security to safeguard personnel and property, assess risks posed by security arrangements to those within and outside the Project site. Security arrangements should be guided by principles of proportionality and GIIP. Make reasonable inquiries to ensure those providing security	Assessment was undertaken at the due diligence phase to assess compliance with security personnel requirements, and ongoing compliance with regular training into good international industry practice of security personnel. No reports were received of allegations of unlawful or abusive acts of security personnel.	**FC**	

	are not implicated in past abuses. Train security personnel in the use of force. Sanction use of force only when used for preventive and defensive purposes. Provide a grievance mechanism.			
4.13	Assess and document risks arising from use of government security personnel deployed to provide security services. Encourage public authorities to disclose security arrangements.		**FC**	
4.14	Investigate allegations of unlawful or abusive acts of security personnel. Take action to prevent recurrence.			
PS5: Land Acquisition and Involuntary Resettlement				
General				

<table>
<tr><td>5.8</td><td>Consider feasible alternative Project designs to avoid or minimise physical/ economic displacement while balancing environmental, social and financial costs and benefits paying attention to impacts on the poor and vulnerable.</td><td>Principles of avoidance were assessed and carried out during the ESIA process and through the route change process during construction. Physical displacement has been avoided by the Project.</td><td>FC</td><td></td></tr>
<tr><td>5.9</td><td>When displacement cannot be avoided, offer displaced communities and person’s compensation for loss of assets at full replacement cost and other assistance.

Transparent and consistent compensation standards to be offered to all communities and persons affected by the displacement.

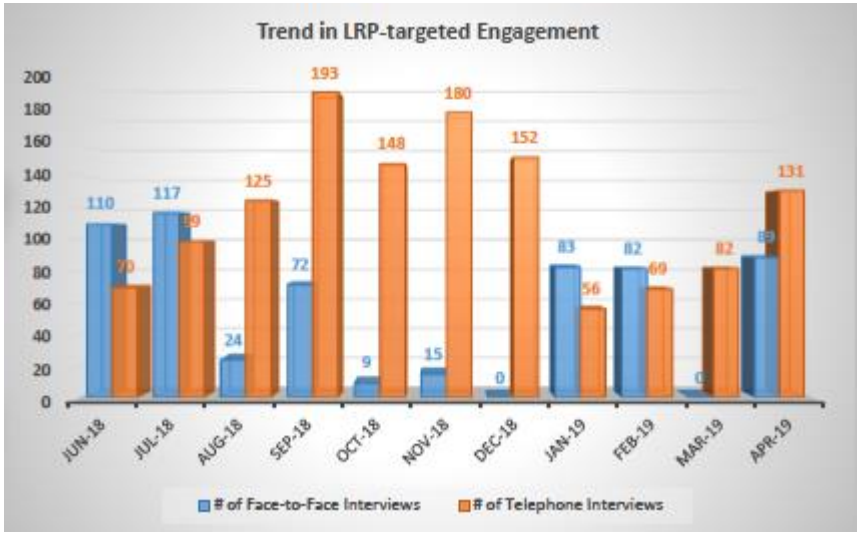
Where feasible offer those whose livelihoods are land based and are displaced from land, land-based compensation.

Possession of acquired land and related assets will take place only after compensation has been made available and where applicable resettlement</td><td>Permanent and temporary acquisition of land and easement rights are required by components of the TANAP Project, across both public and private land. As such, key RAP documents prepared are:

<table><tr><th>Document Name</th><th>Document Number</th></tr><tr><td>Resettlement Action Plan for Pipeline</td><td>GLD-PLN-LAC-GEN-003</td></tr><tr><td>Addendum to RAP for TANAP Pipeline Route</td><td>TNP-PLN-SOC-GEN-006</td></tr><tr><td>Resettlement Action Plan for AGIs</td><td>TNP-PLN-SOC-GEN-008</td></tr><tr><td>Fisheries Livelihood Restoration Plan</td><td>CIN-PLN-SOC-GEN-002</td></tr><tr><td>Final Livelihood Restoration Plan (LRP) for AGIs</td><td>TNP-PLN-SOC-GEN-012</td></tr></table>
Additional guidance documents have been prepared and communicated to potentially affected households about compensation processes and standards (including: Further Entitlements on Land Acquisition and TANAP RAP Fund for Additional Economic Support, Information Brochure, 2017; and the TANAP Project Brochure on Small-scale Livelihood Restoration Assistance Packages under Livelihood Restoration Plan for Above Ground Installations (Stations), December 2017). Further, a series of internal guidance</td><td>FC</td><td></td></tr>
</table>

	sites and moving allowances have been provided in addition to compensation. Provide opportunities to displaced communities and persons to derive appropriate development benefits from the Project.	procedures have been developed, as well as internal Briefing Notes on the Fisheries LRP and LRP for AGIs as case studies. Recent completions also include translation of the Final LRP for AGIs into Turkish language and disclosed on the TANAP website. As-Built documentation has been completed. Land acquisition and expropriation was undertaken by Botas, as the Land Rights Entity (LRE), undertaking these tasks in line with national requirements. TANAP has developed the above documentation and processes to fill gaps between national and lender requirements, which is administered through the RAP Fund. • Land Registration charges, • Support to Informal users on public lands, • Crops on unviable lands, • Transitional Allowance for those losing more than 20%, • Land Consolidation, • Transportation cost, • Multiple Pipelines Impact. The RAP Fund Management Procedure has recently been updated regarding compensation for multiple pipeline effects and to provide detailed implementation principles of the Transitional Allowance.		
5.10	Engage with affected communities, including host communities through	Engagement with affected communities has been ongoing throughout the life of the Project.	**FC**	Whilst being found fully compliant the following observation has been made: TANAP to ensure

	stakeholder engagement as described in PS1. Decision-making processes should include options and alternatives to resettlement and livelihood restoration where applicable. Disclosure of relevant information and participation with communities will continue during planning, implementation, monitoring and evaluation of compensation payments, livelihood restoration and resettlement to achieve outcomes consistent with the objectives of PS5. Additional provisions apply to consultations with Indigenous Peoples, in accordance with PS7.	Land Entry is 100% complete and Land Exit is progressing, with an overall completion rate of 80% as at 31 March 2019. Land exit has been completed in approximately one third of Lot 4, as follows: *3.7-1 Land Exit Close Out Status* **Lot1** / **Lot 2** / **Lot 3** / **Lot 4** / **Total** *Total number of villages*: 161 / 106 / 149 / 168 / **584** *Completed Villages (Land Exit Close Out)*: 156 / 105 / 149 / 57 / **467** *Remaining Village to be completed*: 5 / 1 / - / 111 / **117** ***Overall Completion Rate***: **96%** / **99%** / **100%** / **34%** / **80%** ** As of the end of March 2019 It is noted that TANAP needs to ensure consistency in application of the land exit process between Lots, and Lot 4 benefit from the lessons learned in Lots 1-3. TANAP described that shifting of experienced TANAP Social Specialists into Lot 4 has enabled implementation of some of the earlier lessons. Participation of affected communities has continued, including recently TANAP engaged with each AGI-affected settlement selected for community-based livelihood and social support, to determine the type of support to be provided. The engagement included consultation with community leaders, villagers and specific Focus Group Discussions with women to ensure their active participation. RAP Fund meetings continue. This had additionally been identified by External RAP Monitoring (Dec 2018) and noted by the IESC that progress has been made in this area, including to conduct RAP Fund and land exit meetings as a single event in Lot 1. TANAP has been monitoring questions from meeting participants to ensure that there is clarity on content.		consistency in application of the land exit process between Lots, and Lot 4 benefit from the lessons learned in Lots 1-3. TANAP described that shifting of experienced TANAP Social Specialists into Lot 4 has enabled implementation of some of the earlier lessons.

		Significant efforts have been made since October 2018 to deliver RAP Fund payments, with an increase in expenditure predominantly on land registration charges, transitional support payments and support for those affected by multiple pipelines. Total expenditure to date on RAP Fund is 4.52 million Turkish Lira. RAP Fund payments are planned to continue with the focus on multiple pipeline affected PAPs as well as delivering additional compensation after land registry (and finalisation of the required documents by PAPs to demonstrate eligibility). TANAP demonstrated that targeted engagement continues to be carried out. A specific example is on LRP, whereas at May 2019, both face to face and phone interviews have been recorded, as shown below. Engagement has been responsive to both Project and stakeholder needs (e.g. phone interviews in the winter season): Interviews carried out with PAPs during the visit confirmed that TANAP has been very active in engaging on the LRP, the options available for beneficiaries and processes to obtain the entitlements.  		

		Additionally, PAPs recognised the focus that had been placed on reinstatement and those interviewed who had cultivated their land prior to land exit expressed their understanding that this had been carried out at their own risk. The IESC notes TANAP's efforts in ensuring processes have been well understood by PAPs and urges the Project to retain focus for completion of Lot 4 activities.		
5.11	Establish a grievance mechanism consistent with PS1 as early as possible in the Project development phase The grievance mechanism must be designed to receive and address specific concerns about compensation and relocation raised by displaced persons or members of host communities in a timely fashion, including a recourse mechanism to resolve disputes impartially.	The grievance mechanism established for the Project also applies to PS5 related issues and is described in Grievance Management Procedure TNP-PCD-SOC-GEN-001-P3-2. An improvement process and refresher training were carried out regarding the Project's use of the OSID system. Specifically, TANAP and construction Contractors reviewed use of the OSID grievance management system to ensure correct and consistent categorisation of grievances, which also ensures a common understanding between remaining Project staff on history of issues addressed across Lots and AGIs. Training was carried out in February and March 2019 at MS2/CS5, MS1/CS1, Lot 4/Spreads 7&8, and MS3/MS4. This action closes out a previous gap. See row 1.35 on current grievance figures.	**FC**	
5.12	Where involuntary resettlement is unavoidable, either as a result of a negotiated settlement or expropriation, carry out a census to collect appropriate socio-economic baseline data to identify persons who will be displaced and determine who will be eligible for	The ESIA considered resettlement and livelihood restoration planning and resulted in the preparation of RAP and LRPs. The current status of land acquisition is as follows: Identification for additional land acquisition is ongoing based on the as-built documentation, in parallel to land consolidation works by local authorities for the pipeline, transmission lines and permanent facilities. Total number of parcels subject to land acquisition is 28,739 (an increase of approximately 400 from the previous visit) from the pipeline, AGIs, Energy Transmission Lines (ETL), Access Roads, Ancillary Areas and Utilities, of which 21,053 are private. In total, 20,015 private parcels and 7,491 public parcels have been registered in the name	**FC**	

	compensation and assistance and discourage ineligible persons, such as opportunistic settlers. In the absence of host government procedures, establish a cut-off date for eligibility. Document and disseminate information about the cut-off date throughout the Project area.	of LRE with the total registration for private and public parcels at 95.7% (up from 87.35% at the previous visit).		
5.13	In cases where affected persons reject compensation offers that meet the requirements of this PS and, as a result, expropriation or other legal procedures are initiated, explore opportunities to collaborate with responsible government agencies and if permitted play an active role in resettlement action planning, implementation and monitoring (refer to 30 – 32).	In line with the ESIA, as the LRE, BOTAS is responsible for land acquisition and expropriation. The following table provides a detailed update on parcel numbers and court cases relating to the expropriation of public and private lands:	**FC**	This IFC PS was fully compliant, however this is only an observation. The IESC recommends that the RAP Monitoring Plan is revised, and the SOW checked that it aligns with outcome / output indicators prior to tendering the Completion Audit.
5.14	Establish procedures to monitor and evaluate the implementation of a RAP or livelihood restoration plan (LRP) (see paragraphs19-25)			

	and take corrective action as necessary. Retain competent resettlement professionals to provide advice on PS compliance and to verify the client's monitoring information for Projects with significant involuntary resettlement. Persons will be consulted during the monitoring process.			
5.15	Implementation of RAP or LRP considered complete when adverse impacts have been addressed in a manner consistent with the relevant plan as well as the objectives of this PS. Commission an external completion audit of the RAP and LRP if necessary (depending on scale and complexity of physical and economic displacement). The completion audit should be undertaken once all mitigation measures have been substantially completed and			

	Number of private parcels (1)	Number of public parcels (2)	Total number of parcels (1+2)	Registration cases in court - opened		Registration cases in court - completed (3)		Registration through consent agreement (4)		Total number of registered parcels (3+4)		Registration Status (%)
				Private	Public	Private	Public	Private	Public	Private	Public	
Pipeline	18,335	6,462	24,797	10,469	413	9,621	259	7,932	5,999	17,553	6,258	96.02
AGI & Access Roads	680	229	909	598	44	489	14	88	163	577	177	82.94
ETL	1,848	942	2,790	1,446	44	1060	8	433	771	1493	779	81.43
Others**	113	43	156	118	1	68	0	10	26	78	26	66.66
Total	20,976	7,676	28,652	12,631	502	11,238	281	8,463	6,959	19,374	7,240	92.88

* Statistics provided by end-February 2019; the number of parcels are adjusted due to land consolidation, cadastral renewal works as well as an additional land acquisition with respect to rip-rap installations, slope breakers, and such facilities.

** Others category includes project facilities rip-rap installations, slope breakers, utility lines, etc.

The 4thExternal RAP Monitoring report has been completed, with summaries disclosed in Turkish and English on the TANAP website.

The IESC notes that the update of the RAP Monitoring Plan is to be completed in the coming quarter, to incorporate outcome and/or output indicators to monitor livelihood impacts relating to the pipeline and AGIs and the grievance redress mechanism, as was noted in the External RAP Monitoring Report (Dec 2018). Also noted is that a Scope of Work (SoW) for a RAP Completion Report has been prepared. The IESC recommends that the RAP Monitoring Plan is revised, and the SOW checked that it aligns with outcome / output indicators prior to tendering the Completion Audit.

Additional monitoring activity is forthcoming, including:

- LRAP monitoring through door to door visits (April/May and Sept/October 2019);
- Monitoring (post-delivery) of community-based livelihood and social support to 13 AGI-affected settlements;

	once displaced persons are deemed to have been provided adequate opportunity and assistance to sustainably restore their livelihoods. Competent resettlement professionals will undertake · the completion audit once the agreed monitoring period is concluded. The completion audit will include, at a minimum, a review of the totality of mitigation measures implemented, a comparison of implementation outcomes against agreed objectives, and a conclusion as to whether the monitoring process can be ended.	• completion of the 5thExternal RAP Monitoring Report; and • completion of the 10th and 11th Internal RAP Monitoring Reports.		
5.16	Develop a resettlement and/or livelihood restoration framework outlining principles compatible with this PS where the exact nature or magnitude is unknown due to the stage of Project development.			
	Once the individual Project components are defined and			

<table>
<tr><td></td><td>the necessary information becomes available, such a framework will be expanded into a specific RAP or LRP and procedures in accordance with paragraphs 19 and 25.</td><td></td><td></td><td></td></tr>
<tr><td colspan="5">Displacement</td></tr>
<tr><td>5.17</td><td>Displaced persons may be classified as persons who:
Have formal legal rights to the land or assets they occupy or use;
Do not have formal legal rights to land or assets, but have a claim to land that is recognised or recognisable under national law; or
Have no recognisable legal right or claim to the land or assets they occupy or use.
The census will establish the status of the displaced persons.</td><td rowspan="2">The distribution of all LRAP eligible PAPs by vulnerability types has been updated (current at 29 March 2019). The changes since the previous visit include identification of disabled heads of households, poor, elderly and informal private land users to a new total of 133 LRAP beneficiaries.

<table><tr><th colspan="2">A</th><th colspan="2">B</th><th colspan="2">C</th><th></th></tr><tr><th>CODE</th><th>Total</th><th>CODE</th><th>Total</th><th>CODE</th><th>Total</th><th></th></tr><tr><td>A1</td><td>3</td><td>B1</td><td>0</td><td>C1</td><td>3</td><td></td></tr><tr><td>A2</td><td>7</td><td>B2</td><td>18</td><td>C2</td><td>2</td><td></td></tr><tr><td>A3</td><td>2</td><td>B3</td><td>0</td><td>C3</td><td>0</td><td></td></tr><tr><td>A4</td><td>29</td><td>B4</td><td>26</td><td>C4</td><td>26</td><td></td></tr><tr><td>A5</td><td>3</td><td>B5</td><td>9</td><td></td><td></td><td></td></tr><tr><td>A6</td><td>5</td><td>B6</td><td>0</td><td></td><td></td><td></td></tr><tr><td>TOTAL</td><td>49</td><td></td><td>53</td><td></td><td>31</td><td>133</td></tr><tr><td>%</td><td>%37</td><td></td><td>%40</td><td></td><td>%23</td><td>%100</td></tr></table>
Delivery of 96% of Livelihood Restoration Assistance Packages (LRAPs) to 128 of 133 beneficiaries has been completed; the remaining five beneficiaries were due to receive their LRAPs in May 2019. The remaining five PAPs will receive their cash support in Q2/19.</td><td rowspan="2">FC</td><td rowspan="2"></td></tr>
<tr><td>5.18</td><td>Project-related land acquisition and/or restrictions on land use</td></tr>
</table>

	may result in the physical displacement of people as well as their economic displacement. Consequently, requirements of this PS in respect of physical displacement and economic displacement may apply simultaneously.	The reason for the increase is due to: (i) change in location of BVS49 and accordingly, change in PAPs affected by land acquired for the AGI; and (ii) completion of supporting documentation of the applicants. LRAP payments disbursed as at March 2019 are as follows: **Explanation** / **Figures** / **Explanation** / **Figures** *Total Amount of LRAPs delivered* / 1,679,563.29 ₺ / *Min. paid* / 4,200.00 ₺ *Total # of PAPs benefited* / 128 / *Max. paid* / 20,000.00 ₺ *Average Amount of LRAPs per PAP* / 13,121.59 ₺ / *Total # of all eligible PAPs* / 133 During the visit, the IESC interviewed a sample of LRP beneficiaries and verified samples of the criteria being applied through the LRP in practice. Beneficiaries reported satisfaction with the process of both engagement and delivery of support to date and verified that advice had been received by experts prior to making their own, final selection on the type of support to be received. Examples sighted include farming equipment, where an expert had proposed a number of options of different machines and which would be most appropriate given their farm type and farm incomes. The beneficiary reported that they had considered the advice before confirming their choice with TANAP. Beneficiaries interviewed also understood that the LRP process includes monitoring of outcomes.		
5.19	In the case of physical displacement develop a RAP that covers at minimum the applicable requirements of this PS regardless of number of people affected. The plan will be designed to mitigate the negative impacts of displacement; identify development opportunities; develop a resettlement budget	N/A	**NA**	

	and schedule; and establish the entitlements of all categories of affected persons (including host communities). Particular attention will be paid to the needs of the poor and the vulnerable. All transactions to acquire land rights, as well as compensation measures and relocation activities will be documented.			
5.20	Offer those who have to move to another location feasible resettlement options, including adequate replacement housing or cash compensation where appropriate; and provide relocation assistance suited to the needs of each group of displaced persons. New resettlement sites built for displaced persons must offer improved living conditions. The displaced persons' preferences with respect to relocating in pre-existing communities and groups will be taken into consideration.			

	Existing social and cultural institutions of the displaced persons and any host communities will be respected.			
5.21	In the case of physically displaced persons under paragraph 17, offer choice of replacement property of equal or higher value, security of tenure, equivalent or better characteristics and advantages of location or cash where appropriate. Compensation in kind should be considered in lieu of cash.			
5.22	In the case of physically displaced persons (paragraph 17), offer them a choice of options for adequate housing with security of tenure so that they can resettle legally without facing the risk of forced eviction. Where displaced persons own and occupy structures, compensate them for the loss of assets other than land, such as dwellings and other improvements of the land at			

	full replacement cost, provided these persons have been occupying the Project area prior to the cut-off date for eligibility. Based on consultant with such displaced persons, provide relocation assistance sufficient for them to restore their standard of living at an adequate alternative site.			
5.23	Not required to compensate or assist those who encroach on the Project area after the cut-off date for eligibility, provided the cut-off date has been clearly established and made public.			
5.24	Forced evictions will not be carried out except in accordance with the law and the requirements of the this PS.			
5.25	In the case of Projects involving economic displacement only, develop a LRP to compensate affected persons and/or communities and offer other	Two LRPs have been developed for the Project. The LRP for AGIs (TNP-PLN-SOC-GEN-012-P3-0), and the LRP for Fisheries. Categories for potential economic displacement have been developed by TANAP with inputs from the independent monitors and Lenders commencing from due diligence and disclosed in Project documentation.	**FC**	

	assistance that meets the objectives of this PS.	Livelihood Restoration for Fishing Communities is completed, including two rounds of qualitative monitoring. An internal Briefing Note on Fisheries LRP Implementation was shared as a case study on livelihoods. A focus of efforts has included identifying AGI-affected vulnerable people, for which a database has been developed. Vulnerable people are engaged by the Project and offered transitional support and livelihood assistance packages as per the entitlement matrix. The IESC notes the reports of satisfaction reported by stakeholders interviewed by the External RAP Monitoring group (Dec 2018) and during interviews carried out during the visit.		
	The LRP will establish the entitlements of affected persons and/or communities and will ensure that these are provided in a transparent, consistent, and equitable manner. The mitigation of economic displacement will be considered complete when affected persons or communities have received compensation and other assistance according to the requirements of the LRP and this PS, and are deemed to have been provided with adequate opportunity to re-establish their livelihoods.			
5.26	If land acquisition or restrictions on land use result in economic displacement defined as loss of assets and/or means of livelihood, regardless of whether or not the affected people are physically displaced, the client will meet the			

	requirements in paragraphs 27–29, as applicable.			
5.27	Economically displaced persons who face loss of assets or access to assets will be compensated for such loss at full replacement cost. In cases where land acquisition or restrictions on land use affect commercial structures, affected business owners will be compensated for the cost of re- establishing commercial activities elsewhere, for lost net income during the period of transition, and for the costs of the transfer and reinstallation of the plant, machinery, or other equipment. In cases affecting persons with legal rights or claims to land which are recognised or recognisable under national law (see paragraph 17 (i) and (ii)), replacement property (e.g., agricultural or commercial sites) of equal or greater value will be provided,			

	or, where appropriate, cash compensation at full replacement cost. Economically displaced persons who are without legally recognisable claims to land (see paragraph 17 (iii)) will be compensated for lost assets other than land (such as crops, irrigation infrastructure and other improvements made to the land), at full replacement cost. The client is not required to compensate or assist opportunistic settlers who encroach on the Project area after the cut-off date for eligibility.			
5.28	In addition to compensation for lost assets, if any, as required under paragraph 27, economically displaced persons whose livelihoods or income levels are adversely affected will also be provided opportunities to improve, or at least restore, their means of income- earning capacity,			

	production levels, and standards of living: For persons whose livelihoods are land-based, replacement land that has a combination of productive potential, locational advantages, and other factors at least equivalent to that being lost should be offered as a matter of priority. For persons whose livelihoods are natural resource-based and where Project-related restrictions on access envisaged in paragraph 5 apply, implementation of measures will be made to either allow continued access to affected resources or provide access to alternative resources with equivalent livelihood-earning potential and accessibility. Where appropriate, benefits and compensation associated with natural resource usage may be collective in nature rather than directly oriented towards individuals or households.			

	If circumstances prevent the client from providing land or similar resources as described above, alternative income earning opportunities may be provided, such as credit facilities, training, cash, or employment opportunities. Cash compensation alone, however, is frequently insufficient to restore livelihoods.			
5.29	Transitional support should be provided as necessary to all economically displaced persons, based on a reasonable estimate of the time required to restore their income-earning capacity, production levels, and standards of living.			
Private sector responsibilities under government managed resettlement				
5.30	Where land acquisition and resettlement are the responsibility of the government, collaborate with responsible government agency to the extent permitted by the agency, to achieve outcomes that are consistent	Physical displacement not applicable.	**FC**	

	with this PS. In addition, where government capacity is limited, play an active role during resettlement planning, implementation, and monitoring, as described below.			
5.31	In the case of acquisition of land rights or access to land through compulsory means or negotiated settlements involving physical displacement, identify and describe government resettlement measures. If these measures do not meet the relevant requirements of this Performance Standard prepare a supplemental resettlement plan that together with the documents prepared by the responsible government agency, will address the relevant requirements of this PS (see General Requirements and requirements for Physical Displacement and Economic Displacement).	Botas is providing land acquisition and expropriation as the LRE for the Project. The Turkish national framework for land acquisition and expropriation continues to be supplemented by additional livelihood restoration measures, as described in the key RAP/LRP documents (see also above).	**FC**	

	Supplemental Resettlement Plan, must include at a minimum (i) identification of affected people and impacts;(ii) a description of regulated activities, including the entitlements of displaced persons provided under applicable national laws and regulations;(iii) the supplemental measures to achieve the requirements of this Performance Standard as described in paragraphs 19–29 in a way that is permitted by the responsible agency and implementation time schedule; and (iv) the financial and implementation responsibilities of the client in the execution of its Supplemental Resettlement Plan.			
5.32	In the case of Projects involving economic displacement only, identify and describe the measures that the responsible government agency plans to use to compensate affected communities and persons.			

	If these measures do not meet the relevant requirements of this PS develop an Environmental and Social Action Plan to complement government action. This may include additional compensation for lost assets, and additional efforts to restore lost livelihoods where applicable.			

PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
General

6.6	In the risks and impacts identification process (PS1) consider direct and indirect Project- related impacts on biodiversity and ecosystem services and identify significant residual impacts.	The Project has identified risks and impacts on biodiversity and ecosystem services through its ESIA documentation, which is supported by a detailed Biodiversity Action Plan (BAP), and Ecological Management Plans in place for both operations and construction phase. A priority throughout the Project's ESIA process and construction phase was the avoidance of potentially adverse ecological impacts. This has resulted in numerous design modifications and the development of a suite of mitigation measures to prevent many negative impacts, which were implemented during the construction phase. Bio-restoration of temporary disturbance of the pipeline RoW is the key mitigation measure implemented where avoidance of disturbance is not achieved. The reinstatement and bio-restoration of the RoW is prescribed using site-specific method statements including detailed bioremediation plans for identified freshwater and terrestrial critical habitat. The Project's biodiversity assessment studies and mitigation plans were reviewed during the initial Environmental and Social Due Diligence (ESDD) in 2016. The ESDD found that the initial assessments and management planning for biodiversity did not adequately demonstrate a net gain in critical habitat and no net loss of priority biodiversity features due to the assumption of no residual impacts to these habitats and features in the initial planning and assessment documents. Gaps identified in habitat assessments from the ESDD resulted in specific requirements within the Project's Environmental and Social Action Plan (ESAP). The Project adjusted its BAP to better define and consider residual impacts to critical habitat (CH) and priority biodiversity features (PBF) and the need for offsetting where bio-restoration of the RoW could not fully mitigate disturbance impacts. Golder, in collaboration with Çinar, developed a Biodiversity Offset Strategy (BOS) in 2017. The strategy does not identify specific biodiversity management actions, which are addressed through the BAP, but rather identifies potential offsets and additional conservation actions in accordance with good international practice to achieve No Net Loss or Net Gain outcomes relative to the residual affects identified for Natural Habitats, Priority Biodiversity Features (PBF) and Critical Habitats (CH). The strategy defines the approach to stakeholder engagement, monitoring and adaptive management, including mechanisms that allow re-calculation of net loss and gains and	**FC**	

6.7	Avoid impacts on biodiversity and ecosystem services. When not possible, implement measures to minimise impacts and restore biodiversity and ecosystem services.	facilitate adjustments to the offset strategy to achieve the stated objectives. The BOS provides a conceptual framework that will guide TANAP towards the development and implementation of a detailed Biodiversity Offset Management Plan (BOMP) as a part of TANAP's Environmental and Social Management System. **Biodiversity Offset Planning and Implementation** TANAP has engaged consultants, Golder, to collect further biodiversity data including degradation levels on the natural habitats found along the pipeline. Work has continued to progress on the development and implementation planning for the BOMP described in Golder's BOMP Quarterly Reports. Following on from the July and September 2018 Quarterly Reports described in the previous audit the December 2018 Quarterly Report continued to focus on refining the baseline value of degradation of natural habitats in the LSA and at potential offset sites and refining rehabilitation success at 20yrs to provide a more accurate parameter in the offset equation and a targeted species survey of species of conservation concern (SSC) that may be at risk of extinction in the 20-yr rehabilitation strategy. Following the review of the legal and institutional framework necessary to contextualize the feasibility of the biodiversity offsets, described in the September Quarterly report, potential offset sites were screened according to principles outlined in the Biodiversity Offset Strategy (BOS) to provide a short-list of potential sites and these sites were then ranked according to four criteria identified in the BOS. Stakeholders were identified, a strategy of engagement defined, and consultations commenced. The March 2019 Quarterly Report described continued progress on many of the abovementioned activities in addition to focusing on assessing habitat suitability for the SCC and undertaking final net loss calculations. Offset opportunities were identified and habitat mapping of the top-ranking potential offset sites was undertaken. Potential offset implementation activities were identified, and parametric costs of these activities defined. Stakeholder consultations at the national level and with national and regional stakeholders were undertaken The Project has established plans that require, prior to conducting land clearance activities,	**PC**	**LOT 4 Biorestoration & reforestation recommendation:** TANAP has not yet commenced biorestoration or reforestation in LOT 4; the majority of plans are in the process of being developed and approved. However, the Aftercare Plan still needs to be developed by Contractor and approved by TANAP. It is recommended that this is developed and submitted for approval in a timely fashion in accordance with the biorestoration/reforestation schedule. **OHL and anode bedlines recommendation:** The ESIA on OHLS and Anode Bed-lines has been updated to include impacts on bird species and Çinar has been contracted to undertake bird monitoring at areas

		TANAP or its Contractors to carry out ecological surveys to identify the existing ecological conditions at the site. Dependent on the location & activities to be conducted these surveys may require assistance from or need to be conducted by expert, third party consultants. The ecological surveys are required to be conducted in advance of construction activities and will consider the locations level of sensitivity as identified within the Project's Biodiversity Action Plan (BAP) such as critical habitats, freshwater critical habitats and seasonal constraints. Ecological surveys will identify existing ecological conditions, if land clearance activities are suitable to be conducted within the identified areas and required mitigation measures etc., which require to be implemented during construction activities. See responses to Item 6.9 below for IESC's observed good implementation of the Mitigation Hierarchy (Avoid, Minimise, Mitigate/Restore, Offset) and evidence of TANAP and its Contractors undertaking pre-construction and construction surveys by appropriately qualified specialists at critical habitat sites. During the site visit IESC observed that biodiversity considerations were being incorporated into management planning processes and construction schedules. IESC were informed that the Contractor prepares a "March Chart" that is reviewed by the client's environmental team to check if biological constraints are being included in the Project schedule. As stated in the IESC Site Visit Report (October 2018) the IESC found that the assessment of the OHL and Anode Bed-lines was insufficient to demonstrate the application of the mitigation hierarchy. As stated in the discussion in PS1 regarding the Management of Change for overhead powerlines and Anode Bed-lines: The ESIA on OHLS and Anode Bed-lines has been updated to include impacts on bird species and Çinar has been contracted to undertake bird monitoring at areas where impacts are likely to occur. OHL mitigations and additional monitoring will be implemented based on the findings of Çinar's bird monitoring report. The report was not available at the time of the audit. **Budget allocation for biorestoration monitoring and maintenance and biodiversity offset implementation** ESAP Item 1.2 requires provision of a cost estimate for the operational phase Biorestoration monitoring and maintenance sufficient for the length of the pipeline corridor and to ensure		where impacts are likely to occur. It is recommended that OHL mitigations and additional monitoring be implemented based on the findings of Çinar's bird monitoring report.

		sufficient contingency budget allocations for any newly identified biodiversity remedial and offset activities. There are separate Contracts designed to deal with the activities stated within this item. Mainly, Contractors have the responsibility of "aftercare and monitoring" during the 2 years contractual maintenance period. In addition, as a preparation to operations phase, "ROW Restoration, Vegetation, Maintenance Management and Snow Removal Services" Contract was assigned, under which bio-restoration monitoring (as ROW patrolling) and minor maintenance requirements will be managed. During 2018 visit, the estimated costs were shared with IESC and deemed sufficient. These costs were not reviewed again during the May 2019 visit. A cost was allocated under the Ecological Monitoring section of the Contract of "Environmental Third-Party Monitoring and Consultancy Services during Operation Phase". The IESC was provided with the Annual Ecological Monitoring Price Table developed by ENVY. IESC considers the vegetation cover and density and flora monitoring and aquatic fauna monitoring costs to be low compared to the terrestrial fauna monitoring costs allocated per year. If additional contingency costs are required, currently not covered by the contract, there is a contractual mechanism that can be used for change orders. The Biodiversity Offset Management Plan is being prepared and will be completed at the end of 2019. However, TANAP, who is willing to start the offset Projects this year, allocated an amount of $500,000.00 for the start-up of some of the offset Projects in 2019. The proposed activities for Q 2,3,4 of 2019 include: (a) preliminary habitat mapping studies, b) targeted species surveys on the potential offset sites to assess their suitability for offsetting residual impacts and c) on-going consultation with national and regional stakeholders). Based on IESC's understanding that the proposals cover three forest and three steppe habitat projects the IESC considers the budget adequate. Additional budget for studies to be undertaken in the remaining habitats comprising potential offset sites will be allocated for 2020 onwards once the BOMP is finalised in 2019.		

		LOT 4 Biorestoration & reforestation: TANAP has not yet started biorestoration or reforestation in LOT 4 therefore these activities were not assessed during the site visit. However, plans are in the process of being developed and approved. The Biorestoration Monitoring Plan has been submitted & approved for LOT 4. The Reforestation Plan has been developed and submitted to TANAP for approval. Planting is scheduled to start in Autumn e.g. at CH 66. The Aftercare Plan still needs to be developed by Contractor and approved by TANAP. At CH 58 IESC observed jute matting had been installed. Hydroseeding was scheduled to take place next, if 70% vegetation cover was not achieved by the end of summer the Contractors explained they would need to repeat the hydroseeding exercise towards the end of summer (Sep – Oct).		
6.8	Where the Project may cause risks or impacts to natural habitats, retain competent professionals to assist with conducting the risk and impact identification process in natural habitats. Where the Project may cause risks or impacts to critical habitat, retain external experts with appropriate regional experience to assist in the development of a mitigation hierarchy that complies with PS6 and to verify the	TANAP has engaged competent national and international expertise, through Çinar and Golder, for the identification of impacts and development and implementation of appropriate mitigations to meet legislative requirements and the Project's biodiversity standards as outlined in the BAP. IESC was satisfied with the specialist advisory services obtained from competent external professionals to identify potential Project impacts and risks prior to construction. IESC was convinced he appropriate professional advice was sought to assess the necessity for implementation of restriction periods and mitigations specified in the BAP. IESC was satisfied that experts with the appropriate regional experience were retained on site to monitor construction activities and assist in the development and implementation of the mitigation hierarchy where necessary. Çinar is engaged for the third party construction environmental and social monitoring. Çinar has biodiversity experts and one biodiversity contact person. ENVY will be taking over from Çinar for on-going third party operations phase environmental monitoring of soil, water, waste water. They will not be required to report to the lenders since that activity will be the responsibility of the IESC.	**FC**	

	implementation of those measures.			
Protection and Conservation of Biodiversity				
6.9	Habitat is defined as a terrestrial, freshwater, or marine geographical unit or airway that supports assemblages of living organisms and their interactions with the non-living environment. PS6 divides these into modified, natural, and critical habitats – which are a subset of modified or natural habitats.	The Biodiversity Action Plan (BAP) includes a critical habitat assessment. The Project 's BAP and Biodiversity Offset Strategy (BOS) provides a framework for TANAP to achieving a net gain in Critical Habitat as defined by IFC PS6 and no net loss of priority biodiversity features as defined in EBRD PR6. **LOT 4 Critical Habitat** This audit focused on visiting sites in LOT 4 where CH and/ or PBF had been identified on site. IESC observed good implementation of the mitigation hierarchy at all five CH sites visited. IESC was satisfied that TANAP, and its Contractors, had undertaken the requisite specialist studies during pre-construction and construction to avoid measurable adverse impacts to CH triggering species in accordance with the BAP. Specific observations and findings from the five CH sites visited are described below. **CH 58**	**FC**	
6.10	Consider biodiversity offsets only after appropriate measures to avoid, minimise and restore biodiversity have been applied. Design and implement biodiversity offsets to achieve measurable conservation outcomes, resulting in no let loss and preferably a net gain of biodiversity	At CH 58 the plant species *Thymus leucostomus* (VU, Criterion 2, Tier 2 (b)) triggered Critical Habitat. At this site IESC observed excellent implementation of the mitigation hierarchy and conservation of biodiversity (SCC). In June and July 2016 seeds were collected (as per BAP requirements) and planted in three specified areas near the ROW with similar edaphic and climatic conditions to their original growing locations i.e. steepness of slope, direction of slope. Some seeds were also stored at a gene bank in Ankara. During the site visit the IESC observed successful germination of these seedlings. The seedlings were being protected from livestock grazing and trampling by temporary wooden fences that had been installed. IESC was informed the Contractor's biologist would advise when these structures could be removed. It was anticipated in mid-July 2019. Topsoil had been stripped and stored according to the BAP	**FC**	

	(and net gain is required in critical habitats). Ensure biodiversity offsets are designed to conserve the same biodiversity values (or better) that are being impacted.	specifications and re-contouring and replacement of topsoil had taken place. Jute matting application had been applied on the slope and slope breakers had been installed within the technical specification. One negative observation was the absence of signage stating there was CH on site. IESC was informed the villagers had stolen the signs. These signs would need to be replaced. Seed collection, storage and transplanting of bulbs was undertaken in accordance with specifications of the BAP. The Contractor explained the frequency of monitoring of hydroseeding: initially during first month after construction, then after heavy rainfall events, then once every six weeks, then every 3 months then until the end of the design life annually. IESC was satisfied that all biodiversity conservation and biorestoration activities at this site were being undertaken in accordance with the relevant plans and procedures. **CH 64 & CH 67** At CH 64 Critical Habitat (Criterion 3, Tier 2(e)) was triggered by *Phalacrocorax carbo* (Great Cormorant) and *Phalacrocorax pygmeus* (Pygmy Cormorant). At CH 67 Critical Habitat was triggered by the *Phalacrocorax carbo, Phalacrocorax pygmeus, Cygnus olor, Cygnus Cygnus, Pelecanus.* IESC was not able to visit CH 67 site during the audit as the military was refusing access at the Greece border. BAP mitigations for CH 64 and CH 67 included a closed construction period as flooding of rice paddies constituted a temporary wetland for these CH-trigger congregatory bird species. The BAP specified that where construction was considered to have the risk of disturbing these bird species then activities would have to be stopped until they departed the site. The restriction period was not implemented at these two sites. A deviation request was submitted to undertake construction during the restriction period (1 February to 30 March) at CH 64 & CH 67. The reasons provided included concerns regarding delays in the construction schedule due to restricted construction timelines caused by: a) farmers preventing construction until after seasonal harvesting of rice and b) saturated soils preventing construction. TANAP contracted a qualified ornithologist to conduct a site inspection survey over four days		
6.11	Modified habitats may contain a large proportion of plant and/or animal species of non- native origin, and/or where human activity has substantially modified an area's primary ecological functions and species composition.		**FC**	
6.12	When modified habitat areas include significant biodiversity value, minimise impacts on areas of modified habitat that include significant biodiversity value and implement mitigation measures as appropriate.			
	Natural habitats are areas composed of viable		**FC**	

6.13	assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition.	at CH 64 and CH 67 and a specialist ornithological report was subsequently prepared to understand potential risks that could occur due to construction activities. IESC reviewed a copy of the specialist report (written in Turkish with the assistance of TANAP staff). The CH bird species were not observed on site during the survey. The ornithologist was of the opinion that construction noise was unlikely to disturb the birds, if they were present. The ornithologist concluded the congregatory species were unlikely to visit these temporary wetlands, caused by flooded rice paddies, due to the presence of Lake Gala located approximately 30 km from these sites. Based on these findings the ornithologist advised TANAP that it was acceptable to proceed with construction activities during the restriction period. The Contractor was then required to ensure implementation of mitigation measures during construction including training, workshop, constant supervision and monitoring by a qualified Ecologist during construction. IESC was informed that a biologist was on site during construction activities. IESC was satisfied that construction activities were undertaken in accordance with BAP requirements and the appropriate expert advice was obtained to assess the necessity for implementing mitigation measures.		
6.14	Ensure no significant conversion or degradation of natural habitats, unless the following conditions are met: • there are no viable alternatives within the region; • the views of stakeholders with respect to the extent of conversion and degradation have been established; and • any conversion or degradation is mitigated according to	**CH 65** At CH 65 *Spermophilus citellus* (the European ground squirrel) triggered CH (Criterion 2, Tier 2(b)). The BAP mitigations did not include a restriction period for this species. It required that if they were found on site, they needed to be carried to appropriate and close areas by specialists. Pre-construction surveys did not find this species on site. Construction started on 3 May and was completed within three days. A biologist was present on-site during construction and no presence of this species was observed. IESC was satisfied that the appropriate specialist studies and specialist advisory input was obtained to ensure impacts to this SSC were avoided. **CH 66** At CH 66 *Myomimus roachi* (the night active, tree dwelling Mouse-tailed Dormouse) triggered CH. It had not been observed for the past five years anywhere in the world. Only 50 individuals have ever been seen. One week before construction activities traps were placed on the ground in accordance with BAP requirements. The Contractor produced the PCS report. No specific	**FC**	

	the mitigation hierarchy.	mitigation measures were required according to the BAP. IESC was satisfied that the appropriate precautionary measures were undertaken to ensure this species would not be impacted by construction activities.		
6.15	Design mitigation measures to achieve no net loss of biodiversity (where feasible) by: • Avoiding impacts on biodiversity through the identification and protection of set-asides; • Implementing measures to minimise habitat fragmentation, such as biological corridors; • Restoring habitats during operations and/or after operations; • Implementing biodiversity offsets.	**Offsets:** TANAP has contracted Golder to develop the Biodiversity Offset Management Plan (BOMP) to meet IFC PS 6 offsetting requirements. As mentioned in the October audit report the legal and institutional framework was reviewed in 2018. Following this a list of potential biodiversity offset sites was identified through a process of screening and ranking potential sites. TANAP held a workshop in April 2019 with an extensive list of stakeholders and potential NGO implementation partners were identified through a process of consultation with NGOs at the national level. In Q1 of 2019 final net loss calculations were defined for 2019 Project activity implementation only. The five short-listed NGOs provided TANAP with 13 proposed specific offset activities to be undertaken in 2019 accompanied by associated implementation costs. A formula has been established for total biodiversity net loss that takes cognizance of losses incurred to specific European Nature Information System (Eunis) Habitat types and ecoregions and target species. Appropriate criteria have been developed for ranking potential offset sites and a habitat map prepared for each of the 12 top-ranking offset sites. In Q2 2019 TANAP will select which NGOs to contract as the offset implementation partner based on proposed budget, proposed offset activities and other considerations. Concerns currently exist over the budget allocation of direct versus indirect costs of Project implementation, budgets need to be aligned with lender requirements and their desire for maximum expenditure on direct costs. The selected NGO implementation partners will then commence preliminary habitat mapping studies and targeted species surveys on the potential offset sites to assess their suitability for offsetting residual impacts. They will also commence consultation with national and regional stakeholders.	**FC**	
6.16	Critical habitats are areas with high biodiversity value, including:	Once these studies are completed determination of net gain is scheduled for Q3 2019 and final offset Projects and plans will be developed in Q4 2019.	**FC**	

	habitat of significant importance to Critically Endangered and/or Endangered species; habitat of significant importance to endemic and/or restricted-range species; habitat supporting globally significant concentrations of migratory species and/or congregatory species; highly threatened and/or unique ecosystems; and/or areas associated with key evolutionary processes.	IESC considers the scheduling and procedure for biodiversity offset implementation to be on track and in accordance with the requirements of PS6		
6.17	Ensure Project activities are not implemented in areas of critical habitat unless the following conditions are met: • there are no viable alternative locations within the region; there will be no measurable adverse impacts on the			

	biodiversity values for which the critical habitat was designated or the ecological process supporting those biodiversity values; • there will be no net reduction in the global and/or national/regional population of critically endangered or endangered species over a reasonable period of time; • a long-term biodiversity monitoring and evaluation program is designed and integrated into the overall management programme.			
6.18	If the requirements above are met, describe mitigation strategies			

	within a Biodiversity Action Plan that is designed to achieve net gains of the biodiversity values for which the critical habitat was designated.			
6.19	Where offsets are proposed, demonstrate that the significant residual impacts on biodiversity will be adequately mitigated to meet the requirements of paragraph 17.			
6.20	Where Project falls in legally protected and internationally recognised areas – comply with the requirements for natural and critical habitats and in addition: • demonstrate that the proposed development is legally permitted in such areas;	BAP and ESIA include the framework for compliance with regard to protected areas and internationally recognised areas.	**FC**	

	• comply with any government recognised management plans for such areas; • consult protected area sponsors and managers, Affected Communities, Indigenous Peoples and other stakeholders, as appropriate; and • implement additional programmes to promote and enhance the conservation aims and effective management of the area.			
6.21	Intentional or accidental introduction of alien, or non-native, species of flora and fauna into areas where they are not normally found can be a significant threat to	The ESIA for OHLS and Anode Bed-lines states “if spreading of invasive species is observed, an appropriate eradication program should be developed and implemented”. Contractor strips topsoil to 30cm at all construction sites. The topsoil is stockpiled, seeded and drained. The topsoil stockpile is checked for the presence of invasive flora species and around the site for fauna species. Monthly checking for invasive species takes place. If invasive species are found an invasive species plan would be prepared to remove them. The BRM and the Ecological Management Plan refer to how invasive species are dealt with.	**FC**	

	biodiversity, since some alien species can become invasive, spreading rapidly and out-competing native species.	The management of invasive species in the Project RoW has been identified in the BAP as a significant threat to achieving bio-restoration throughout the Project. Contractor reinstatement plans include monitoring for and control of invasive species.		
6.22	Ensure there is no intentional introduction of alien species, unless this is carried out in accordance with the existing regulatory framework for such introduction or is subject to a risk assessment. Implement measures to avoid accidental or unintended introductions.		**FC**	
Management of Ecosystem Services				
6.24	Conduct a systematic review to identify priority ecosystem services which are: • those which Project operations are most likely to impact and which result in adverse impacts to	Compliance with Ecosystem services was assessed during the ESDD phase and not further assessed during monitoring.	**NA**	

	Affected Communities; • Affected Communities must be consulted to determine priority ecosystem services.			
6.25	Avoid adverse impacts on priority ecosystem services of relevance to Affected Communities, where there is direct management control or significant influence over these services. Where unavoidable, minimise impacts and implement measures to maintain the value and functionality of priority ecosystem services. With respect to impacts on priority ecosystem services on which the Project depends, minimise impacts on ecosystem services and implement measures that increase resource			

	efficiency of Project operations (PS3). Additional provisions for ecosystem services are included in PS4, paragraph 8; PS5, paragraphs 5 and 25–29; PS 7, paragraphs 13–17 and 20; and PS8, paragraph 11.			

PS 8: Cultural Heritage				
Protection of cultural heritage in Project design and execution				
8.6	Comply with applicable national laws. Identify and protect cultural heritage by ensuring that internationally recognised practices are implemented for the protection, field-based study, and documentation of cultural heritage.	TANAP and the Ministry of Culture and Tourism are working closely to ensure identification, protection, mitigation and management of cultural heritage sites associated with the Project, and in line with both national and lender requirements.	**FC**	
8.7	Retain competent professionals to assist in identification and protection of cultural heritage. See also paragraphs 10 and 13 to 15.	The Museum Directorate is the competent authority with responsibility for guiding identification and protection of cultural heritage works, in line with national requirements.	**FC**	
8.8	Siting and design to avoid significant adverse impacts to cultural heritage. Determine whether the proposed location of a Project is in areas where cultural heritage is expected to be found, either during construction or operations	During the ESIA and engineering design, 106 new archaeological sites that were not previously recorded in the inventory of the Ministry of Culture and Tourism of Turkey were discovered and registered as archaeological and cultural immovable assets. Aside from these sites, 55 sites previously registered by the Ministry are located along the pipeline route. The Chance Find Procedure has been implemented throughout the construction phase and 100% of Chance Finds have been closed out. Due to the stage of the Project the Chance Finds procedures remain in place but there is very little ground disturbance occurring.	**FC**	

	as part of the environmental and social risks and impacts identification process. Develop provisions in the ESMS for managing chance finds through a chance find procedure. Do not disturb any chance find until an assessment by competent professionals is made and actions consistent with the requirements PS8 are identified.			
8.9	Consult with Affected Communities who use, or have used within living memory, the cultural heritage for long-standing cultural purposes to identify cultural heritage of importance. Incorporate into the decision-making process the views of the Affected Communities on such cultural heritage.	The Museum Directorate is responsible for all consultation and engagement associated with cultural heritage and affected communities.	**FC**	

	Consult with relevant national or local regulatory agencies that are entrusted with the protection of cultural heritage.			
8.10	Allow continued access by Affected Communities to cultural sites or provide alternative access subject to overriding health, safety and security considerations.	TANAP has focused on ensuring cultural heritage finds are accessible through means of presentations at national and international heritage symposia, and through publication of literature associated with excavations.	**FC**	
8.11	Apply mitigation measures that favour avoidance. Where avoidance is not feasible, apply a mitigation hierarchy as follows: • Minimise adverse impacts and implement restoration measures, in situ, that ensure maintenance of the value and functionality of the cultural heritage, including maintaining or restoring any ecosystem processes needed to support it;	Removal has been undertaken only where there has been the support of the Ministry of Culture and Tourism and the relevant Museum Directorate, to move salvaged finds to local museums for their protection and documentation.	**FC**	

	• Where restoration in situ is not possible, restore the functionality of the cultural heritage, in a different location, including the ecosystem processes needed to support it; • The permanent removal of historical and archaeological artefacts and structures is carried out according to the principles of paragraphs 6 and 7; • Compensate for loss of that tangible cultural heritage, only where minimisation of adverse impacts and restoration to ensure maintenance of the value and functionality of the cultural heritage are demonstrably not feasible, and where the Affected Communities			

	are using the tangible cultural heritage for long-standing cultural purposes.			
8.12	Do not remove any non-replicable cultural heritage unless all of the following conditions are met:	Not applicable	**NA**	
	There are no technically or financially feasible alternatives to removal;			
	The overall benefits of the Project conclusively outweigh the anticipated cultural heritage loss from removal;			
	Any removal of cultural heritage is conducted using the best available technique.			
8.13	Critical cultural heritage consists of one or both of the following:	Not applicable	**NA**	
	the internationally recognised heritage of communities who use, or have used within living			

	memory the cultural heritage for long-standing cultural purposes; or			
	legally protected cultural heritage areas, including those proposed by host governments for such designation.			
8.14	Do not remove, significantly alter, or damage critical cultural heritage.			
	When impacts are unavoidable, use a process of Informed Consultation and			
	Participation (ICP) of the Affected Communities (as per PS1) and which uses a good faith negotiation process that results in a documented outcome.			
	Retain external experts to assist in the assessment and protection of critical cultural heritage.			
8.15	Meet the following requirements where a			

	Project is located within a legally protected area or legally defined buffer zone:			
	Comply with national/local regulations or protected area management plans;			
	Consult the areas' sponsors and managers, local communities and other key stakeholders;			
	Implement additional programs to promote and enhance conservation aims of the area.			
Project's Use of Cultural Heritage				
8.16	Where a Project proposes to use the cultural heritage, including knowledge, innovations, or practices of local communities for commercial purposes, the Inform communities of:	Not applicable	**NA**	
	their rights under national law;			

	the scope and nature of the proposed commercial development; the potential consequences of such development.			
8.17	Do not proceed with commercialisation unless: a process of ICP (see PS1) and which uses a good faith negotiation process that results in a documented outcome is undertaken; fair and equitable sharing of benefits from commercialisation of such knowledge, innovation, or practice, consistent with their customs and traditions is provided.	Not applicable	**NA**	

Appendix B Assessment Table – Equator Principles

Audit Criterion		Detail	Findings / Comments	Compliance Category	Actions Required/Recommendations
EP1	Principle 1: Review & Categorisation	When a Project is proposed for financing, the EPFI will, as part of its internal social and environmental review and due diligence, categorise such Project based on the magnitude of its potential impacts and risks in accordance with the environmental and social screening criteria of the International Finance Corporation (IFC).	Category A Project	**FC**	
EP2	Principle 2: Social & Environmental Assessment	An assessment has been prepared by borrower, consultant or external expert, and includes mitigation and management measures.	The environmental and social impacts have been assessed through a systematic process applied for all Project components as identified through the ESIA scoping and through engagement with key Government stakeholders in Turkey. The ESIAs have been developed to meet national standards, TANAP policy and guidance provided by international institutions such as the IFC, EBRD and EU. The ESIA was publicly disclosed on the TANAP website (22 June 2015). Turkey's Ministry of Environment and Urbanisation (MoEU)	**FC**	
EP3	Principle 3: Applicable Social & Environmental Standards	Non-OECD countries and OECD not High-Income: The Project complies with, or established a justified deviation from, applicable IFC Performance Standards and EHS Guidelines (refer to Appendix B below)	The following Host Government Agreements and Inter-Government Agreements have been signed by TANAP in order to meet legal compliance with Turkish requirements and set the basis for the Projects implementation.	**FC**	

Audit Criterion		Detail	Findings / Comments	Compliance Category	Actions Required/Recommendations
		The Assessment process in both cases should address compliance with relevant host country laws, regulations and permits that pertain to social and environmental matters.	"Memorandum of Understanding between the Government of the Republic of Turkey and the Government of the Republic of Azerbaijan Concerning the Development of a Standalone Pipeline for the Transportation of The Natural Gas Originating and Transiting from the Republic of Azerbaijan across the Territory of the Republic of Turkey", was signed on 24 December 2011 in Ankara, which was approved by Law no 6342 dated 29 June 2012 and was published in the Official Gazette on 12 July 2012. Following approval by Council of Ministers, the Agreement was published in the Official Gazette on 11 October 2012 and entered into force. Within the framework of this Memorandum of Understanding, Trans Anatolian Gas Pipeline Company B.V was established." "The Host Agreement Between the Government of the Republic of Turkey and the Government of the Republic of Azerbaijan Concerning the Trans-Anatolian Natural Gas Pipeline System", and its attachment, "The Host Government Agreement (HGA) between the Government of the Republic of Turkey and The Trans Anatolian Gas Pipeline Company B.V. Concerning Trans-Anatolian Natural Gas Pipeline System", were signed on 26 June 2012 in Istanbul. These Agreements were approved by Law no 6375 dated 02 January 2013, which was published in the Official Gazette on 17		

Audit Criterion		Detail	Findings / Comments	Compliance Category	Actions Required/Recommendations
			January 2013. Following approval by Council of Ministers, the Agreements were published in the Official Gazette on 19 March 2013 and entered into force." The Host Government Agreement requires Project Environmental and Social Standards complying with National Laws and also taking due account of international standards and practices generally prevailing in the Natural Gas pipeline industry, including relevant Performance Standards of the International Finance Corporation.		
EP4	Principle 4: Action Plan & Management System	EPFIs require the development and maintenance of an Action Plan (AP) to address findings, prioritise mitigation measures, and take corrective actions and monitoring measures. An Environmental and Social Management Systems (ESMS) has been established.	TANAP has developed and implemented a detailed Environmental and Social Management System (ESMS) with which to manage the Project's environmental and social aspects. TANAP has documented the ESMS in line with ISO 14001 requirements. The ESMS was observed to be appropriate to the size and scale of the Project, documenting E&S policy, management plans, procedures and guidance. The TANAP ESMS was communicated to the Project subcontractors to ensure that their respective ESMS' reflected the requirements of the TANAP ESMS. ESMPs within the ESMS appear to favour impact and risk avoidance, include measurable targets and indicators and assign roles and responsibilities for timebound implementation.	**FC**	

Audit Criterion		Detail	Findings / Comments	Compliance Category	Actions Required/Recommendations
			TANAP have amended key ESMPs to reflect the transition from construction and commissioning to operations.		
EP5	Principle 5: Consultation & Disclosure	EPFI will require the client to demonstrate effective Stakeholder Engagement as an ongoing process in a structured and culturally appropriate manner with Affected Communities and, where relevant, Other Stakeholders. For Projects with potentially significant adverse impacts on Affected Communities, the client will conduct an Informed Consultation and Participation process.	TANAP has developed and is implementing a SEP, which describes responsibilities for TANAP, CCs and LRE, and is updated in accordance with the ESMS requirements.	**FC**	
		In order to accomplish this, the appropriate assessment documentation, or non-technical summaries thereof, will be made available to the public by the borrower for a reasonable minimum period in the relevant local language and in a culturally appropriate manner. The borrower will take account of and document the process and results of the consultation, including any actions agreed resulting from the consultation.		**FC**	
		For Projects with adverse social or environmental impacts, disclosure should occur early in the Assessment process and in any event before the Project construction commences, and on an ongoing basis.		**FC**	

Audit Criterion		Detail	Findings / Comments	Compliance Category	Actions Required/Recommendations
EP6	Principle 6: Grievance Mechanism	The borrower will inform the affected communities about the mechanism in the course of its community engagement process and ensure that the mechanism addresses concerns promptly and transparently, in a culturally appropriate manner, and is readily accessible to all segments of the affected communities.	TANAP's Grievance Mechanism and Online Stakeholder Information Database (OSID) provides for both complaints management and their responses, as well as enquiries / general feedback.	**FC**	
EP7	Principle 7: Independent Review	For all Category A Projects and, as appropriate, for Category B Projects, an independent social or environmental expert not directly associated with the borrower will review the Assessment, AP and consultation process documentation in order to assist EPFI's due diligence and assess Equator Principles compliance.	Underway	**FC**	
EP8	Principle 8: Covenants	An important strength of the Principles is the incorporation of covenants linked to compliance. For Category A and B Projects, the borrower will covenant in financing documentation.	To be determined	Not Assessed	
EP9	Principle 9: Independent Monitoring & Reporting	To ensure ongoing monitoring and reporting over the life of the loan, EPFIs will, for all Category A Projects, and as appropriate, for Category B Projects, require appointment of an independent environmental and/or social expert, or require that the borrower retain qualified and experienced external experts to	Underway	FC	

Audit Criterion		Detail	Findings / Comments	Compliance Category	Actions Required/Recommendations
		verify its monitoring information which would be shared with EPFIs.			

Appendix C Assessment Table – EBRD Performance Requirements

Note, assessment is detailed where materially different to IFC Performance Standards.

Requirement	EBRD Performance Measure	Findings / Comments	Compliance Category	Actions Required/Recommendations
Review and Categorisation	**The Project is categorised under Category A, B or C.**			
PR1: Social and Environmental Assessment				
PR1 requires the client conduct a process of Social and Environmental Assessment that will consider in an integrated manner the potential social and environmental (including labour, health, and safety) risks and impacts of the Project.	Social and Environmental Assessment	See IFC PS1	**PC**	See IFC PS1
	Organisational Capacity and Commitment	See IFC PS1	**PC**	See IFC PS1
	Managing Contractors	See IFC PS1	**FC**	
	Training	See IFC PS2	**PC**	See IFC PS2
	Community Environmental and Social Action Plan	See IFC PS1	**FC**	
	Performance Monitoring and Review	See IFC PS1	**FC**	
PR2: Labour and Working Conditions				
PR2 requires compliance, at a minimum, with national labour, social security and occupational health and safety laws, and the principles and standards embodied in the International Labour Organisation (ILO) conventions.	Human Resource Policies	See IFC PS2	**FC**	
	Working Relationships	See IFC PS2	**FC**	
	Working Conditions and Terms of Employment	See IFC PS2	**FC**	
	Child Labour	See IFC PS2	**FC**	
	Forced Labour	See IFC PS2	**FC**	
	Non-Discrimination and Equal Opportunity	See IFC PS2	**FC**	
	Worker's Organisations	See IFC PS2	**FC**	

Requirement	EBRD Performance Measure	Findings / Comments	Compliance Category	Actions Required/Recommendations
	Retrenchment	See IFC PS2	**FC**	
	Grievance Mechanism	See IFC PS2	**FC**	
	Occupational Health and Safety	See IFC PS2	**PC**	See IFC PS 2
	Non-Employee Workers	See IFC PS2	**FC**	
	Supply Chain	See IFC PS2	**FC**	
	Wages, Benefits and Conditions of Work	See IFC PS2	**FC**	
PR3: Pollution Prevention and Abatement				
PR3 requires Projects compliance and operation with relevant EU environmental requirements as well as with applicable national law. Where EU environmental requirements do not exist, the client will apply other good international practice such as the World Bank Group Environmental Health and Safety Guidelines.	Pollution Prevention, Resource Conservation and Energy Efficiency	See IFC PS3	**FC**	
	Wastes	See IFC PS3	**PC**	See IFC PS 3
	Safe Use and Management of Hazardous Substances and Materials	See IFC PS3	**PC**	See IFC PS 3
	Emergency Preparedness and Response	See IFC PS1	**FC**	
	Industrial Production	NA	**N/A**	
	Ambient Considerations	See IFC PS3	**FC**	
	Greenhouse Gas Emissions	See IFC PS3	**FC**	
	Pesticide Use and Management	See IFC PS3	**FC**	
PR4: Community Health and Safety and Security				

Requirement	EBRD Performance Measure	Findings / Comments	Compliance Category	Actions Required/Recommendations
PR4 requires the client to identify and evaluate the risks and potential impacts to the health and safety of the affected community during the design, construction, operation, and decommissioning of the Project and establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts.	Infrastructure and Equipment Safety	See IFC PS4	**FC**	
	Hazardous Material Safety	See IFC PS4	**PC**	See IFC PS4
	Environmental and Natural Resource Issues	See IFC PS4	**FC**	
	Community Exposure to Disease	See IFC PS4	**FC**	
	Emergency Preparedness and Response	See IFC PS4	**PC**	See IFC PS4
	Security Personnel Requirements	See IFC PS4	**FC**	
PR5: Land Acquisition, Involuntary Resettlement and Economic Displacement				
PR5 requires that the client avoid or minimise, involuntary resettlement, mitigate adverse social and economic impacts from land acquisition or restrictions on affected persons' use of and access to land, improve or, at a minimum, restore the livelihoods and standards of living of displaced persons to pre-Project levels, to improve living conditions among displaced persons through provision of adequate housing with security of tenure at resettlement sites.	Project Design	See IFC PS5 and IFC PS1	**FC**	
	Consultation	See IFC PS5 and IFC PS1	**FC**	
	Grievance Mechanism	See IFC PS5	**FC**	
	Compensation and Benefits for Displaced Persons	See IFC PS5	**FC**	
	Resettlement Planning and Implementation	See IFC PS5	**FC**	
	Resettlement Action Plan	See IFC PS5	**FC**	
	Livelihood Restoration Framework	See IFC PS5	**FC**	
	Physical Displacement	N/A	**N/A**	
	Economic Displacement	See IFC PS5	**FC**	

Requirement	EBRD Performance Measure	Findings / Comments	Compliance Category	Actions Required/Recommendations
	Private Sector Responsibilities Under Government Managed Resettlement	See IFC PS5	**FC**	
	Loss of Amenities	See IFC PS5	**FC**	
PR6: Biodiversity Conservation and Sustainable Natural Resource Management				
PR6 require the client to identify the potential impacts on biodiversity in the Projects area of influence likely to be caused by the Project through the environmental and social assessment process. The extent of due diligence should be sufficient to fully characterise the environmental risks and impacts, consistent with a precautionary approach and reflecting the concerns of relevant stakeholders.	Appraisal of Issues and Impacts	See IFC PS6	**FC**	
	Habitat Protection and Conservation	See IFC PS6	**PC**	
	Invasive Species	See IFC PS6	**FC**	
	Sustainable Management and Use of Living Resources	N/A	**N/A**	
	Fisheries	N/A	**N/A**	
	Genetically Modified Organisms (EBRD)	N/A	**N/A**	
	Supply Chain (EBRD)	N/A	**N/A**	
	Biodiversity and Tourism (EBRD)	N/A	**N/A**	
PR7: Indigenous Peoples				
PR7 requires an assessment of impacts on Indigenous Peoples. The client is expected to first avoid adverse effects and where this is not feasible, to prepare an Indigenous Peoples' Development Plan so as to minimise and/or mitigate any potential adverse impacts and identify benefits.	Assessment Avoidance of Adverse Impacts Information Disclosure, Consultation and Informed Participation	N/A	**N/A**	

Requirement	EBRD Performance Measure	Findings / Comments	Compliance Category	Actions Required/Recommendations
	Preparation of an Indigenous Peoples Development Plan Compensation and Benefit Sharing Impacts on Traditional or Customary Lands Under Use Relocation of Indigenous Peoples from Traditional or Customary Lands Cultural Resources Grievance Mechanism and Prevention of Ethnically Based Discrimination			
PR8: Cultural Heritage				
PR8 require the client to identify if any cultural heritage is likely to be adversely affected by the Project, and assess the likelihood of any chance finds. The client is responsible for locating and designing a Project so as to avoid significant damage to cultural heritage.	Protection of Cultural Heritage in Project Design and Execution (MIGA)	See IFC PS8	**FC**	
	Screening for Risks or Impacts on Cultural Heritage (EBRD)	See IFC PS1	**FC**	
	Impacts on Intangible Heritage (EBRD)			
	Avoiding Impacts	See IFC PS8 and PS1	**FC**	
	Assessing Impacts that Cannot be Avoided (EBRD)	See IFC PS8 and PS1	**FC**	

Requirement	EBRD Performance Measure	Findings / Comments	Compliance Category	Actions Required/Recommendations
	Managing Impacts on Cultural Heritage (EBRD)	See IFC PS8 and PS1	**FC**	
	Chance Find Procedures (EBRD)	See IFC PS8	**FC**	
	Consultation with Affected Communities (EBRD)	See IFC PS8	**FC**	
	Project's Use of Cultural Heritage	N/A	**N/A**	
PR10: Information Disclosure and Stakeholder Engagement				
PR10 requires that the EBRD agree with the client how the relevant requirements of this PR will be addressed as part of the client's overall environmental and social appraisal process, ESAP and/or Management System. PR10 is to be read in conjunction with PR1.	Stakeholder Engagement and Analysis	See IFC PS1	**FC**	
	Stakeholder Engagement Plan	See IFC PS1	**FC**	
	Information Disclosure	See IFC PS1	**FC**	
	Meaningful Consultation	See IFC PS1	**FC**	
	Disclosure and Consultation on Category A Projects	See IFC PS1	**FC**	
	Engagement During Project Implementation and External Reporting	See IFC PS1	**FC**	
	Corporate Finance	N/A	**N/A**	
	Grievance Mechanism	See IFC PS1	**FC**	

Appendix D Assessment Table - IFC EHS General Guidelines (2007)

General IFC EHS Guidelines Requirements	Compliance Category
Environmental Protection	
1. Air Emissions and Ambient Air Quality	
Ambient Air Quality	
1.1. Emissions do not result in pollutant concentrations that reach or exceed relevant ambient quality guidelines and standards by applying national legislated standards, or in their absence, the current WHO Air Quality Guidelines.	**FC**
1.2. Projects with significant sources of air emissions, and potential for significant impacts to ambient air quality, should prevent or minimize impacts by ensuring that: emissions do not contribute a significant portion to the attainment of relevant ambient air quality guidelines or standards. As a general rule, this Guideline suggests 25 percent of the applicable air quality standards to allow additional, future sustainable development in the same airshed.	**FC**
1.3. At facility level, impacts should be estimated through qualitative or quantitative assessments by the use of baseline air quality assessments and atmospheric dispersion models to assess potential ground level concentrations. Local atmospheric, climatic, and air quality data should be applied when modeling dispersion, protection against atmospheric downwash, wakes, or eddy effects of the source, nearby structures, and terrain features. The dispersion model applied should be internationally recognised, or comparable.	**FC**
1.4. Facilities or Projects located within poor quality airsheds, and within or next to areas established as ecologically sensitive (e.g. national parks), should ensure that any increase in pollution levels is as small as feasible, and amounts to a fraction of the applicable short-term and annual average air quality guidelines or standards as established in the Project-specific environmental assessment. Suitable mitigation measures should also include the relocation of significant sources of emissions outside the airshed in question, use of cleaner fuels or technologies, application of comprehensive pollution control measures, offset activities at installations controlled by the Project sponsor or other facilities within the same airshed, and buy-down of emissions within the same airshed.	**FC**
Point Sources	
1.5. The stack height for all point sources of emissions should be designed according to good international industry practice (GIIP).	**Not assessed**

1.6. Emissions from small combustion process installations (3 MWth - 50 MWth), operated more than 500 hours per year, and those with an annual capacity utilisation of more than 30 percent should be in compliance with standards, recommended by General EHS guidelines of IFC.	**Not assessed**
Fugitive Sources	
1.7. Volatile Organic Compounds (VOC) emissions associated with equipment leaks should be prevented and controlled by techniques including: • Equipment modifications; • Implementation a leak detection and repair (LDAR) program that controls fugitive emissions by regularly monitoring to detect leaks, and implementing repairs within a predefined time period; • Substitution of less volatile substances; • Collection of vapours through air extractors and subsequent; • Treatment with destructive control devices; • Use of floating roofs on storage tanks.	**FC**
1.8. Dust control methods should be implemented to prevent particulate matter (dust) emissions including the following: • Covers, water suppression, or increased moisture content for open materials storage piles; • Use of water suppression for control of loose materials on paved or unpaved road surfaces.	**FC**
1.9. Open burning of solid wastes, whether hazardous or nonhazardous, is not considered good practice and should be avoided.	**FC**
1.10. No new systems or processes should be installed using CFCs, halons, 1,1,1- trichloroethane, carbon tetrachloride, methyl bromide or HBFCs.	**FC**
Mobile Sources – Land-based	

1.11 Emissions from on-road and off-road vehicles should comply with national or regional programs. In the absence of these, the following approach should be considered: • Implementation of the manufacturer recommended engine maintenance programs; • Drivers should be instructed on the benefits of driving practices that reduce both the risk of accidents and fuel consumption, including measured acceleration and driving within safe speed limits; • Operators with fleets of 120 or more units of heavy duty vehicles, or 540 or more light duty vehicles within an airshed should consider additional ways to reduce potential impacts including replacing older vehicles with newer, more fuel efficient alternatives; Converting high-use vehicles to cleaner fuels, where feasible; • Installing and maintaining emissions control devices, such as catalytic converters; Implementing a regular vehicle maintenance and repair program.	**FC**
<u>Greenhouse Gases (GHGs)</u>	
1.12. The following measures should be implemented to reduce and control of greenhouse gases: • Carbon financing; • Protection and enhancement of sinks and reservoirs of greenhouse gases; • Carbon capture and storage technologies; • Limitation and / or reduction of methane emissions; • Enhancement of energy efficiency.	**FC**
<u>Air quality monitoring</u>	
1.13. Air quality monitoring program should be developed. The monitoring parameters selected should reflect the pollutants of concern associated with Project processes. The air quality monitoring program should consider the following elements:	**FC**

• baseline calculations; • monitoring type and frequency (data on emissions and ambient air quality generated through the monitoring program should be representative of the emissions discharged by the Project over time); • monitoring locations; • sampling and analysis methods (monitoring programs should apply national or international methods for sample collection and analysis).	
1.14. Annual Stack Emission Testing of boilers with capacities between =3 MWth and < 20 MWth should be carried out to control SO2, NOx and PM (for gaseous fuel- fired boilers, only NOx). SO2 can be calculated based on fuel quality certification if no SO2 control equipment is used. If Annual Stack Emission Testing demonstrates results consistently and significantly better than the required levels, frequency of Annual Stack Emission Testing can be reduced from annual to every two or three years. Annual Stack Emission Testing of boilers with capacities between =20 MWth and < 50 MWth should be carried out to control SO2, NOx and PM (for gaseous fuel-fired boilers, only NOx). Emission Monitoring: • SO_2. Plants with SO_2 control equipment: Continuous. • NOx: Continuous monitoring of either NOx emissions or indicative NOx emissions using combustion parameters. • PM: Continuous monitoring of either PM emissions, opacity, or indicative PM emissions using combustion parameters / visual monitoring.	**Not assessed**
1.15. Air quality monitoring for turbines should include: Annual Stack Emission Testing: NOx and SO_2 (NOx only for gaseous fuel-fired turbines). If Annual Stack Emission Testing results show constantly (3 consecutive years) and significantly (e.g. less than 75 percent) better than the required levels, frequency of Annual Stack Emission Testing can be reduced from annual to every two or three years. Emission Monitoring: NOx: Continuous monitoring of either NOx emissions or indicative NOx emissions using combustion parameters.SO2: Continuous monitoring if SO2 control equipment is used.	**Not assessed**
1.16. Air quality monitoring for turbines should include:	**Not assessed**

• Annual Stack Emission Testing: Nox, SO2 and PM (NOx only for gaseous fuel-fired diesel engines). • If Annual Stack Emission Testing results show constantly (3 consecutive years) and significantly (e.g. less than 75 percent) better than the required levels, frequency of Annual Stack Emission Testing can be reduced from annual to every two or three years. • Emission Monitoring: NOx: Continuous monitoring of either NOx emissions or indicative NOx emissions using combustion parameters. SO2: Continuous monitoring if SO2 control equipment is used. PM: Continuous monitoring of either PM emissions or indicative PM emissions using operating parameters.	
2. Energy Conservation	
Energy Management Programs	
2.1. Energy management programs should include the following elements: • Identification, and regular measurement and reporting of principal energy flows within a facility at unit process level; • Preparation of mass and energy balance; • Definition and regular review of energy performance targets, which are adjusted to account for changes in major influencing factors on energy use; • Regular comparison and monitoring of energy flows with performance targets to identify where action should be taken to reduce energy use; • Regular review of targets, which may include comparison with benchmark data, to confirm that targets are set at appropriate levels.	**Compliance Anticipated**
Energy Efficiency	
2.2. For any energy-using system, a systematic analysis of energy efficiency improvements and cost reduction opportunities should include a hierarchical examination of opportunities to: • Demand/Load Side Management by reducing loads on the energy system;	**Compliance Anticipated**

• Supply Side Management by reduce losses in energy distribution; improve energy conversion efficiency; exploit energy purchasing opportunities; use lower- carbon fuels.	
2.3. In process heating systems, a system heat and mass balance should be developed for examination of savings opportunities.	**Compliance Anticipated**
2.4. Special measures for heating load reduction should be used including the following: • Ensure adequate insulation to reduce heat losses through furnace/oven etc. structure; • Recover heat from hot process or exhaust streams to reduce system loads; • In intermittently-heated systems, consider use of low thermal mass insulation to reduce energy required to heat the system structure to operating temperature; • Control process temperature and other parameters accurately to avoid, for example, overheating or overdrying; • Examine opportunities to use low weight and/or low thermal mass product carriers, such as heated shapers, kiln cars etc.; • Review opportunities to schedule work flow to limit the need for process reheating between stages; • Operate furnaces/ovens at slight positive pressure, and maintain air seals to reduce air in-leakage into the heated system, thereby reducing the energy required to heat unnecessary air to system operating temperature; • Robust Scheduled maintenance programs.	**Compliance Anticipated**
2.5. Losses in heat distribution systems should be reduced through the following actions: • Promptly repair distribution system leaks; • Regularly verify correct operation of steam traps in steam systems, and ensure that traps are not bypassed;	**Compliance Anticipated**

• Insulate distribution system vessels, such as hot wells and de-aerators, in steam systems and thermal fluid or hot water storage tanks; • In steam systems, return condensate to the boiler house for re-use, since condensate is expensive boiler-quality water and valuable beyond its heat content alone.	
2.6. The following efficiency opportunities should be examined for process furnaces or ovens, and utility systems, such as boilers and fluid heaters: • Regularly monitor CO, oxygen or CO_2 content of flue gases to verify that combustion systems are using the minimum practical excess air volumes; • Consider combustion automation using oxygen-trim controls; • Minimise the number of boilers or heaters used to meet loads; • Use flue dampers to eliminate ventilation losses from hot boilers held at standby; • Maintain clean heat transfer surfaces; • In steam boiler systems, use economisers to recover heat from flue gases to pre-heat boiler feed water or combustion air; • Adopt automatic (continuous) boiler blowdown; • Recover heat from blowdown systems through flash steam recovery or feed- water preheat; • With fired heaters, consider opportunities to recover heat to combustion air through the use of recuperative or regenerative burner systems; • Oxy Fuel burners; • Fuel quality control/fuel blending and etc.	**Compliance Anticipated**
2.7. Special measures to improve process cooling efficiency should be used including the following:	**Compliance Anticipated**

Ensure adequate insulation; • Control process temperature; • Operate cooling tunnels at slight positive pressure and maintain air seals to reduce air in-leakage into the cooled system; • Examine opportunities to pre-cool using heat recovery to a process stream requiring heating, or by using a higher temperature cooling utility; • In cold and chill stores, minimise heat gains to the cooled space by use of air curtains, entrance vestibules, or rapidly opening/closing doors; • Do not use refrigeration for auxiliary cooling duties, such as compressor cylinder head or oil cooling; • Use energy efficiency techniques in air conditioning applications.	
2.8. The efficiency of cooling systems should be improved by effective refrigeration system design and increased refrigerant compression efficiency, as well as minimisation of the temperature difference through which the system works and of auxiliary loads used to operate the refrigeration system.	**Compliance Anticipated**
2.9. Refrigerant compression efficiency should be improved by avoiding operation of multiple compressors at part-load conditions; considering turndown efficiency when specifying chillers.	**Compliance Anticipated**
2.10. Energy use of refrigeration system auxiliaries (e.g. evaporator fans and chilled water pumps) should be reduced.	**Compliance Anticipated**
<u>Compressed Air Systems</u>	
2.11. Special energy conservation measures should be used including : examination of each true user of compressed air to identify the air volume needed and the pressure at which this should be delivered; air use reduction opportunities review.	**Compliance Anticipated**
2.12. Monitoring of pressure losses in filters should be provided. Adequately sized distribution pipework designed to minimise pressure losses should be used.	**Compliance Anticipated**

3. Wastewater and Ambient Water Quality	
General applicability and approach	
3.1. In the context of their overall ESHS management system, facilities should understand the quality, quantity, frequency and sources of liquid effluents in its installations.	**FC**
3.2. Segregation of liquid effluents principally along industrial, utility, sanitary, and rainwater categories should be planed and implemented, in order to limit the volume of water requiring specialised treatment.	**FC**
3.3. Opportunities should be identified to prevent or reduce wastewater pollution through such measures as recycle/reuse within their facility, input substitution, or process modification.	**FC**
3.4. Wastewater discharges should be compliant with the applicable: (i) discharge standard (if the wastewater is discharged to a surface water or sewer), and (ii) water quality standard for a specific reuse.	**FC**
3.5. Water use efficiency should be provided to reduce the amount of wastewater generation.	**FC**
3.6. Process modification should be implemented, including waste minimisation, and reducing the use of hazardous materials to reduce the load of pollutants requiring treatment.	**FC**
3.7. When wastewater treatment is required prior to discharge, the level of treatment should be based on: • National and local standards as reflected in permit requirements and sewer system capacity to convey and treat wastewater if discharge is to sanitary sewer; • Assimilative capacity of the receiving water for the load of contaminant being discharged wastewater if discharge is to surface water; • Intended use of the receiving water body; • Presence of sensitive receptors; • GIIP for the relevant industry sector.	**FC**
Liquid Effluent Quality	

3.8. Discharges of process wastewater, sewage, wastewater from utility operations or rainwater to surface water should not result in contaminant concentrations in excess of local ambient water quality criteria or, in the absence of local criteria, other sources of ambient water quality. Receiving water use and assimilative capacity, taking other sources of discharges to the receiving water into consideration, should also influence the acceptable pollution loadings and effluent discharge quality. Temperature of wastewater prior to discharge should not result in an increase greater than 3°C of ambient temperature at the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use and assimilative capacity among other considerations.	**FC**
3.9. Discharges of industrial wastewater, sewage, wastewater from utility operations or rainwater into public or private wastewater treatment systems should: • Meet the pre-treatment and monitoring requirements of the sewer treatment system into which it discharges; • Not interfere, directly or indirectly, with the operation and maintenance of the collection and treatment systems, or pose a risk to worker health and safety, or adversely impact characteristics of residuals from wastewater treatment operations; • Be discharged into municipal or centralised wastewater treatment systems that have adequate capacity to meet local regulatory requirements for treatment of wastewater • Generated from the Project. Pre-treatment of wastewater to meet regulatory requirements before discharge from the Project site is required if the municipal or centralised wastewater treatment system receiving wastewater from the Project does not have adequate capacity to maintain regulatory compliance.	**FC**
3.10. The quality of treated process wastewater, wastewater from utility operations or rainwater discharged on land, including wetlands, should be established based on local regulatory requirements. Where land is used as part of the treatment system and the ultimate receptor is surface water, water quality guidelines for surface water discharges specific to the industry sector process should apply. Potential impact on soil, groundwater, and surface water, in the context of protection, conservation and long term sustainability of water and land resources should be assessed when land is used as part of any wastewater treatment system.	**FC**
3.11. Septic systems should be used for treatment and disposal of domestic sanitary sewage in areas with no sewerage collection networks. When septic systems are the selected form of wastewater disposal and treatment, they should be:	**NA**

• Properly designed and installed in accordance with local regulations and guidance to prevent any hazard to public health or contamination of land, surface or groundwater. • Well maintained to allow effective operation. • Installed in areas with sufficient soil percolation for the design wastewater loading rate. • Installed in areas of stable soils that are nearly level, well drained, and permeable, with enough separation between the drain field and the groundwater table or other receiving waters.	
3.12. Treatment technologies should be used to achieve the desired discharge quality for process wastewater and to maintain consistent compliance with regulatory requirements. The design and operation of the selected wastewater treatment technologies should avoid uncontrolled air emissions of volatile chemicals from wastewaters. Residuals from industrial wastewater treatment operations should be disposed in compliance with local regulatory requirements. Recommended water management strategies for utility operations include: • Adoption of water conservation opportunities for facility cooling systems; • Use of heat recovery methods or other cooling methods to reduce the temperature of heated water prior to discharge to ensure the discharge water temperature does not result in an increase greater than 3°C of ambient temperature; • Minimising use of antifouling and corrosion inhibiting chemicals by ensuring appropriate depth of water intake and use of screens; • Testing for residual biocides and other pollutants of concern should be conducted to determine the need for dose adjustments or treatment of cooling water prior to discharge. Rainwater should be separated from process and sewage streams. Surface runoff from process areas or potential sources of contamination should be prevented. Runoff from process and storage areas should be segregated from potentially less contaminated runoff. Runoff from areas without potential sources of contamination should be minimised. Sludge from rainwater catchments or collection and treatment systems should be disposed in compliance with local regulatory requirements, in the absence of which disposal has to be consistent with protection of public health and safety, and conservation and long term sustainability of water and land resources.	**FC**
3.13. Recommended sewage management strategies include:	**FC**

• Segregation of wastewater streams to ensure compatibility with selected treatment option; • Segregation and pre-treatment of oil and grease containing effluents prior to discharge into sewer systems; • If sewage from the industrial facility is to be discharged to surface water, treatment to meet national or local standards for sewage discharges; • If sewage from the industrial facility is to be discharged to either a septic system, or where land is used as part of the treatment system, treatment to meet applicable national or local standards for sewage discharges is required; • Sludge from sewage treatment systems should be disposed in compliance with local regulatory requirements.	
3.14. A wastewater and water quality monitoring program with adequate resources and management oversight should be developed and implemented. The wastewater and water quality monitoring program should consider monitoring parameters, monitoring type and frequency, monitoring locations, data quality.	**FC**
4. Water Conservation	
Water conservation program	
4.1. Water conservation programs should be implemented commensurate with the magnitude and cost of water use. These programs should promote the continuous reduction in water consumption and achieve savings in the water pumping, treatment and disposal costs.	**FC**
4.2. The essential elements of a water management program should involve: • Identification, regular measurement, and recording of principal flows within a facility. • Definition and regular review of performance targets, which are adjusted to account for changes in major factors affecting water use. • Regular comparison of water flows with performance targets to identify where action should be taken to reduce water use. • 4.3. Water should be reused in multi-stage washing and rinsing processes or from one process for another with less exacting water quality requirements.	**FC**

4.4. Measures for water saving should be implemented to reduce consumption of building and sanitary water, including: • Regularly maintain plumbing, and identify and repair leaks; • Install self-closing taps, automatic shut-off valves, spray nozzles, pressure reducing valves, and water conserving fixtures; • Operate dishwashers and laundries on full loads, and only when needed; • Install water-saving equipment in lavatories, such as lowflow toilets.	**FC**
4.5. Water conservation opportunities in cooling systems should include: • Use of closed circuit cooling systems with cooling towers rather than once-through cooling systems; • Limiting condenser or cooling tower blowdown to the minimum required to prevent unacceptable accumulation of dissolved solids; • Use of air cooling rather than evaporative cooling; • Use of treated waste water for cooling towers; • Reusing/recycling cooling tower blowdown.	**FC**
4.6. Large quantities of water may be used by steam systems, and this should be reduced by the following measures: • Repair of steam and condensate leaks, and repair of all failed steam traps; • Return of condensate to the boilerhouse, and use of heat exchangers (with condensate return) rather than direct steam injection where process permits; • Flash steam recovery; • Minimising boiler blowdown consistent with maintaining acceptably low dissolved solids in boiler water;	**FC**

• Minimising deaerator heating.	
5. Hazardous Materials Management	
General Hazardous Materials Management	
5.1. The level of risk should be established through an on-going assessment process based on: • The types and amounts of hazardous materials present in the Project. • Analysis of potential spill and release scenarios using available industry statistics on spills and accidents where available. • Analysis of the potential for uncontrolled reactions such as fire and explosions. • Analysis of potential consequences based on the physical geographical characteristics of the Project site, including aspects such as its distance to settlements, water resources, and other environmentally sensitive areas.	**FC**
5.2. The management actions to be included in a Hazardous Materials Management Plan should be commensurate with the level of potential risks associated with the production, handling, storage, and use of hazardous materials.	**FC**
5.3. Where there is risk of a spill of uncontrolled hazardous materials, facilities should prepare a spill control, prevention, and countermeasure plan as a specific component of their Emergency Preparedness and Response Plan.	**FC**
5.4. The plan should be tailored to the hazards associated with the Project, and include: • Training of Operators on release prevention, including drills specific to hazardous materials as part of emergency preparedness response training; • Implementation of inspection programs to maintain the mechanical integrity and operability of pressure vessels, tanks, piping systems, relief and vent valve systems, containment infrastructure, emergency shutdown systems, controls and pumps, and associated process equipment; • Preparation of written Standard Operating Procedures (SOPs) for filling USTs, ASTs or other containers or equipment as well as for transfer operations by personnel trained in the safe transfer and filling of the hazardous material, and in spill prevention and response;	**FC**

• SOPs for the management of secondary containment structures; • Identification of locations of hazardous materials and associated activities on an emergency plan site map; • Documentation of availability of specific personal protective equipment and training needed to respond to an emergency; • Documentation of availability of spill response equipment; • Description of response activities in the event of a spill, release, or other chemical emergency.	
5.5. Recommended practices to prevent hazardous material releases from transfer processes include: • Use of transfer equipment that is compatible and suitable for the characteristics of the materials transferred and designed to ensure safe transfer; • Regular inspection, maintenance and repair of fittings, pipes and hoses; • Provision of secondary containment, drip trays or other overflow and drip containment measures, for hazardous materials containers at connection points or other possible overflow points.	**FC**
5.6. Special measures should be implemented to prevent overfills of vessels and tanks, including: • Prepare written procedures for transfer operations; • Installation of gauges on tanks to measure volume inside; • Use of dripless hose connections for vehicle tank and fixed connections with storage tanks; • Provision of automatic fill shutoff valves on storage tanks to prevent overfilling; • Use of a catch basin around the fill pipe to collect spills; • Use of piping connections with automatic overfill protection;	**FC**

• Pumping less volume than available capacity into the tank or vessel by ordering less material than its available capacity; • Provision of overfill or over pressure vents that allow controlled release to a capture point.	
5.7. Special measures should be implemented to avoid uncontrolled reactions or conditions resulting in fire or explosion, including: • Storage of incompatible materials (acids, bases, flammables, oxidisers, reactive chemicals) in separate areas, and with containment facilities separating material storage areas; • Provision of material-specific storage for extremely hazardous or reactive materials; • Use of flame arresting devices on vents from flammable storage containers; • Provision of grounding and lightning protection for tank farms, transfer stations, and other equipment that handles flammable materials; • Selection of materials of construction compatible with products stored for all parts of storage and delivery systems, and avoiding reuse of tanks for different products without checking material compatibility; • Storage of hazardous materials in an area of the facility separated from the main production works. Where proximity is unavoidable, physical separation should be provided using structures designed to prevent fire, explosion, spill, and other emergency situations from affecting facility operations; • Prohibition of all sources of ignition from areas near flammable storage tanks.	**PC**
<u>Control Measures</u>	
5.8. Secondary containment should be used to control accidental releases of liquid hazardous materials during storage and transfer. Secondary containment design and construction should hold released materials effectively until they can be detected and safely recovered. Appropriate secondary containment structures consist of berms, dikes, or walls capable of containing the larger of 110 percent of the largest tank or 25 percent of the combined tank volumes in areas with above-ground tanks with a total storage volume equal or greater than 1,000 liters.	**PC**

5.9. Transfer of hazardous materials from vehicle tanks to storage should be affected in areas with surfaces sufficiently impervious to avoid loss to the environment and sloped to a collection or a containment structure not connected to municipal wastewater / rainwater collection system.	**FC**
5.10. Where it is not practical to provide permanent, dedicated containment structures for transfer operations, one or more alternative forms of spill containment should be provided, such as portable drain covers, automatic shut-off valves on storm water basins, or shut off valves in drainage or sewer facilities, combined with oil-water separators.	**FC**
5.11. Storage of drummed hazardous materials with a total volume equal or greater than 1,000 liters should be affected in areas with impervious surfaces that are sloped or bermed to contain a minimum of 25 percent of the total storage volume.	**FC**
5.12. Double-walled, composite, or specially coated storage and piping systems should be used particularly for underground storage tanks (USTs) and underground piping. If double walled systems are used, they should provide a means of detecting leaks between the two walls.	**FC**
5.13. Leak detection may be used in conjunction with secondary containment, particularly in high-risk locations. Leak detection is especially important in situations where secondary containment is not feasible or practicable, such as in long pipe runs. Acceptable leak detection methods include: • Use of automatic pressure loss detectors on pressurised or long distance piping; • Use of approved or certified integrity testing methods on piping or tank systems, at regular intervals; • Considering the use of SCADA if financially feasible.	**FC**
5.14. Special measures should be implemented for underground storage of hazardous materials to manage the risks of fire or explosion, vapor losses into the atmosphere, leaks of hazardous materials, including: • Avoiding use of USTs for storage of highly soluble organic materials; • Assessing local soil corrosion potential, and installing and maintaining cathodic protection (or equivalent rust protection) for steel tanks; • For new installations, installing impermeable liners or structures under and around tanks and lines that direct any leaked product to monitoring ports at the lowest point of the liner or structure;	**FC**

• Monitoring the surface above any tank for indications of soil movement; • Reconciling tank contents by measuring the volume in store with the expected volume, given the stored quantity at last stocking, and deliveries to and withdrawals from the store; • Testing integrity by volumetric, vacuum, acoustic, tracers, or other means on all tanks at regular intervals; • Evaluating the risk of existing UST in newly acquired facilities to determine if upgrades are required for USTs that will be continued to be used, including replacement with new systems or permanent closure of abandoned USTs.	
5.15. Hazardous Materials Risk Management Plan should be prepared to prevent and control of catastrophic releases of toxic, reactive, flammable, or explosive chemicals that may result in toxic, fire, or explosion hazards.	**FC**
5.16. An Emergency Preparedness and Response Plan incorporated into and consistent with, the facility's overall ES/OHS MS, should be prepared to cover the following: • Planning Coordination: Procedures should be prepared for informing the public and emergency response agencies; documenting first aid and emergency medical treatment; taking emergency response actions; reviewing and updating the emergency response plan to reflect changes, and ensuring that employees are informed of such changes; • Procedures should be prepared for using, inspecting, testing, and maintaining the emergency response equipment; • Employees and Contractors should be trained on emergency response procedures.	**FC**
5.17. When hazardous materials are in use above threshold quantities, the management plan should include a system for community awareness, notification and involvement that should be commensurate with the potential risks identified for the Project during the hazard assessment studies (availability of general information to the potentially affected community on the nature and extent of Project operations, and the prevention and control measures in place to ensure no effects to human health; the potential for off-site effects to human health or the environment following an accident at planned or existing hazardous installations; specific and timely information on appropriate behavior and safety measures to be adopted in the event of an accident including practice drills in locations with higher risks).	**FC**
6. Waste Management	

General Waste Management	
6.1. Facilities that generate and store wastes should practice the following: • Establishing waste management priorities at the outset of activities based on an understanding of potential Environmental, Health, and Safety (EHS) risks and impacts and considering waste generation and its consequences; • Establishing a waste management hierarchy that considers prevention, reduction, reuse, recovery, recycling, removal and finally disposal of wastes; • Avoiding or minimising the generation waste materials, as far as practicable; • Where waste generation cannot be avoided but has been minimised, recovering and reusing waste; • Where waste cannot be recovered or reused, treating, destroying, and disposing of it in an environmentally sound manner.	**FC**
6.2. Effective planning and implementation of waste management strategies should include: • Review of new waste sources during planning, siting, and design activities, including during equipment modifications and process alterations, to identify expected waste generation, pollution prevention opportunities, and necessary treatment, storage, and disposal infrastructure; • Definition of opportunities for source reduction, as well as reuse and recycling; • Definition of procedures and operational controls for onsite storage; • Definition of options / procedures / operational controls for treatment and final disposal.	**FC**
6.3. Potential impacts and risks associated with the management of any generated hazardous waste should be assessed during its complete life cycle.	**FC**
6.4. It should be ensured that Contractors handling, treating, and disposing of hazardous waste are reputable and legitimate enterprises, licensed by the relevant regulatory agencies and following good international industry practice for the waste being handled.	**FC**

6.5. Processes should be designed and operated to prevent, or minimise, the quantities of wastes generated and hazards associated with the wastes generated in accordance with the following strategy: • Substituting raw materials or inputs with less hazardous or toxic materials, or with those where processing generates lower waste volumes; • Applying manufacturing process that convert materials efficiently; • Instituting good housekeeping and operating practices, including inventory control to reduce the amount of waste resulting from materials that are out-of- date, off-specification, contaminated, damaged, or excess to plant needs; • Instituting procurement measures that recognise opportunities to return usable materials such as containers and which prevents the over ordering of materials; • Minimising hazardous waste generation by implementing stringent waste segregation to prevent the commingling of non-hazardous and hazardous waste to be managed.	**FC**
6.6. Total amount of waste may be significantly reduced through the implementation of recycling plans, which should consider the following elements: • Identification and recycling of products that can be reintroduced into the manufacturing process or industry activity at the site; • Investigation of external markets for recycling by other industrial processing operations located in the neighbourhood or region of the facility; • Providing training and incentives to employees in order to meet objectives.	**FC**
6.7. If waste materials are still generated after the implementation of feasible waste prevention, reduction, reuse, recovery and recycling measures, waste materials should be treated and disposed of and all measures should be taken to avoid potential impacts to human health and the environment. Such measures should include the following: • On-site or off-site biological, chemical, or physical treatment of the waste material to render it nonhazardous prior to final disposal; • Treatment or disposal at permitted facilities specially designed to receive the waste.	**FC**

6.8. In the absence of qualified commercial or government-owned waste vendors and disposal Operators (taking into consideration proximity and transportation requirements), facilities generating waste should consider using: • Have the technical capability to manage the waste in a manner that reduces immediate and future impact to the environment; • Installing on-site waste treatment or recycling processes; • As a final option, constructing facilities that will provide for the environmental sound long-term storage of wastes on-site or at an alternative appropriate location up until external commercial options become available.	**FC**
<u>Waste storage</u>	
6.9. Wastes should be stored in a manner that prevents the commingling or contact between incompatible wastes.	**PC**
6.10. Different type of wastes should be stored in different closed containers away from direct sunlight, wind and rain.	**PC**
6.11. Periodic inspections of waste storage areas should be conducted with documenting the findings.	**FC**
6.12. Secondary containment should be included wherever liquid wastes are stored in volumes greater than 220 liters. The available volume of secondary containment should be at least 110 percent of the largest storage container, or 25 percent of the total storage capacity (whichever is greater), in that specific location.	**FC**
6.13. Adequate ventilation should be provided where volatile wastes are stored.	**FC**
6.14. Hazardous waste storage activities should also be subject to special management actions, conducted by employees who have received specific training in handling and storage of hazardous wastes: • Provision of readily available information on chemical compatibility to employees, including labelling each container to identify its contents; • Clearly identifying (label) and demarcating the area, including documentation of its location on a facility map or site plan; • Conducting periodic inspections of waste storage areas and documenting the findings; • Preparing and implementing spill response and emergency plans to address their accidental release;	**FC**

• Avoiding underground storage tanks and underground piping of hazardous waste.	
Transportation	
6.15. On-site and Off-site transportation of waste should be conducted so as to prevent or minimise spills, releases, and exposures to employees and the public. All waste containers designated for off-site shipment should be secured and labeled with the contents and associated hazards, be properly loaded on the transport vehicles before leaving the site, and be accompanied by a shipping paper that describes the load and its associated hazards.	**FC**
Monitoring	
6.16. Monitoring activities associated with the management of hazardous and non- hazardous waste should include: • Regular visual inspection of all waste storage collection and storage areas for evidence of accidental releases and to verify that wastes are properly labelled and stored. • Regular audits of waste segregation and collection practices; • Periodic auditing of third party treatment, and disposal services including re-use and recycling facilities when significant quantities of hazardous wastes are managed by third parties; • Regular monitoring of groundwater quality in cases of Hazardous Waste on site storage and/or pre-treatment and disposal.	**FC**
7. Noise	
Prevention and Control	
7.1. Noise impacts should not exceed the following levels: • 55 One Hour LAeq (dBA) at daytime for residential; institutional; educational receptors; • 45 One Hour LAeq (dBA) at night time for residential; institutional; educational receptors;	**FC**

• 70 One Hour LAeq (dBA) at daytime and night time for industrial; commercial receptors.	
7.2. Noise prevention and mitigation measures should be applied where predicted or measured noise impacts from a Project facility or operations exceed the applicable noise level guideline at the most sensitive point of reception. Noise reduction options that should be considered include: • Selecting equipment with lower sound power levels; • Installing silencers for fans; • Installing suitable mufflers on engine exhausts and compressor components; • Installing acoustic enclosures for equipment casing radiating noise; • Improving the acoustic performance of constructed buildings, apply sound insulation; • Limiting the hours of operation for specific pieces of equipment or operations, especially mobile sources operating through community areas; • Reducing Project traffic routing through community areas wherever possible • Developing a mechanism to record and respond to complaints.	**Compliance anticipated**
<u>Monitoring</u>	
7.3. Noise monitoring programs should be designed and conducted by trained specialists. Typical monitoring periods should be sufficient for statistical analysis.	**FC**
8. Contaminated Land	
<u>Prevention of land contamination</u>	
8.1. Contamination of land should be avoided by preventing or controlling the release of hazardous materials, hazardous wastes, or oil to the environment.	**FC**

8.2. When contamination of land is suspected or confirmed during any Project phase, the cause of the uncontrolled release should be identified and corrected to avoid further releases and associated adverse impacts.	**FC**
8.3. Contaminated lands should be managed to avoid the risk to human health and ecological receptors.	**NA**
8.4. The preferred strategy for land decontamination is to reduce the level of contamination at the site while preventing the human exposure to contamination.	**NA**
Risk assessment	
8.5. Where there is potential evidence of contamination at a site, the following steps should be provided: • Identification of the location of suspected highest level of contamination through a combination of visual and historical operational information; • Sampling and testing of the contaminated media (soils or water); • Evaluation of the analytical results against the local and national contaminated sites regulations; • Verification of the potential human and/or ecological receptors and exposure pathways relevant to the site in question.	**NA**
8.6. Interim risk management actions should be implemented at any phase of the Project life cycle if the presence of land contamination poses an “imminent hazard”, i.e., representing an immediate risk to human health and the environment if contamination were allowed to continue, even a short period of time. Appropriate risk reduction should be implemented as soon as practicable to remove the condition posing the imminent hazard.	**NA**
8.7. If the presence of land contamination poses an “imminent hazard”, a detailed site- specific, environmental risk assessment should be used to develop strategies that yield acceptable health risks, while achieving low level contamination on-site.	**NA**
8.8. The risk factors and conceptual site model within the contaminant risk approach described should also provide a basis to manage and mitigate environmental contaminant health risks.	**NA**
9. Occupational Health and Safety	
9. General Facility Design and Operation	

Integrity of Workplace Structures	
9.1. Permanent and recurrent places of work should be designed and equipped to protect OHS: • Surfaces, structures and installations should be easy to clean and maintain, and not allow for accumulation of hazardous compounds; • Buildings should be structurally safe, provide appropriate protection against the climate, and have acceptable light and noise conditions; • Fire resistant, noise-absorbing materials should, to the extent feasible, be used for cladding on ceilings and walls; • Floors should be level, even, and non- skid; • Heavy oscillating, rotating or alternating equipment should be located in dedicated buildings or structurally isolated sections.	**FC**
Severe Weather and Facility Shutdown	
9.2. Work place structures should be designed and constructed to withstand the expected elements for the region and have an area designated for safe refuge, if appropriate.	**Not Assessed**
9.3. Standard Operating Procedures (SOPs) should be developed for Project or process shut-down, including an evacuation plan. Drills to practice the procedure and plan should also be undertaken annually.	**Not Assessed**
Workspace and Exit	
9.4. The space provided for each worker, and in total, should be adequate for safe execution of all activities, including transport and interim storage of materials and products. Passages to emergency exits should be unobstructed at all times. Exits should be clearly marked to be visible in total darkness. The number and capacity of emergency exits should be sufficient for safe and orderly evacuation of the greatest number of people present at any time, and there should be a minimum two exits from any work area. Facilities also should be designed and built taking into account the needs of disabled persons.	**FC**
Fire Precautions	
9.5. The workplace should be designed to prevent the start of fires through the implementation of fire codes applicable to industrial settings.	**FC**

9.6. Facilities should be equipped with fire detectors, alarm systems, and fire-fighting equipment. The equipment should be maintained in good working order and be readily accessible. It should be adequate for the dimensions and use of the premises, equipment installed, physical and chemical properties of substances present, and the maximum number of people present.	**FC**
9.7. Fire and emergency alarm systems that are both audible and visible.	**FC**
<u>Lavatories and Showers</u>	
9.8. Adequate lavatory facilities (toilets and washing areas) should be provided for the number of people expected to work in the facility and allowances made for segregated facilities, or for indicating whether the toilet facility is “In Use” or “Vacant”. Toilet facilities should also be provided with adequate supplies of hot and cold running water, soap, and hand drying devices. Where workers may be exposed to substances poisonous by ingestion and skin contamination may occur, facilities for showering and changing into and out of street and work clothes should be provided.	**FC**
9.9. Adequate supplies of potable drinking water should be provided from a fountain with an upward jet or with a sanitary means of collecting the water for the purposes of drinking. Water supplied to areas of food preparation or for the purpose of personal hygiene (washing or bathing) should meet drinking water quality standards.	**FC**
9.10. Where there is potential for exposure to substances poisonous by ingestion, suitable arrangements are to be made for provision of clean eating areas where workers are not exposed to the hazardous or noxious substances.	**FC**
<u>Safe Access</u>	
9.11. Passageways for pedestrians and vehicles within and outside buildings should be segregated and provide for easy, safe, and appropriate access.	**FC**
9.12. Equipment and installations requiring servicing, inspection, and/or cleaning should have unobstructed, unrestricted, and ready access.	**FC**

9.13. Hand, knee and foot railings should be installed on stairs, fixed ladders, platforms, permanent and interim floor openings, loading bays, ramps, etc.	**FC**
9.14. Openings should be sealed by gates or removable chains.	**FC**
9.15. Covers should, if feasible, be installed to protect against falling items.	**FC**
9.16. Measures to prevent unauthorised access to dangerous areas should be in place.	**FC**
First Aid	
9.17. The employer should ensure that qualified first-aid can be provided at all times. Appropriately equipped first-aid stations should be easily accessible throughout the place of work.	**FC**
9.18. Eye-wash stations and/or emergency showers should be provided close to all workstations where immediate flushing with water is the recommended first-aid response.	**FC**
9.19. Remote sites should have written emergency procedures in place for dealing with cases of trauma or serious illness up to the point at which patient care can be transferred to an appropriate medical facility.	**FC**
Air Supply	
9.20. Sufficient fresh air should be supplied for indoor and confined work spaces. Factors to be considered in ventilation design include physical activity, substances in use, and process related emissions. Air distribution systems should be designed so as not to expose workers to draughts.	**FC**
9.21. Mechanical ventilation systems should be maintained in good working order. Point- source exhaust systems required for maintaining a safe ambient environment should have local indicators of correct functioning.	**Not assessed**

9.22. Re-circulation of contaminated air is not acceptable. Air inlet filters should be kept clean and free of dust and microorganisms. Heating, ventilation and air conditioning (HVAC) and industrial evaporative cooling systems should be equipped, maintained and operated so as to prevent growth and spreading of disease agents or breeding of vectors of public health concern.	**Not assessed**
10. Communication and Training	
<u>OHS Training</u>	
10.1. Provisions should be made to provide OHS orientation training to all new employees.	**FC**
10.2. Training should consist of basic hazard awareness, sites specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. Any site-specific hazard or color coding in use should be thoroughly reviewed as part of orientation training.	**FC**
10.3. If visitors to the site can gain access to areas where hazardous conditions or substances may be present, a visitor orientation and control program should be established to ensure visitors do not enter hazard areas unescorted.	**FC**
10.4. The employer should ensure that workers and Contractors, prior to commencement of new assignments, have received adequate training and information enabling them to understand work hazards and to protect their health from hazardous ambient factors that may be present.	**FC**
10.5. A basic occupational training program and specialty courses should be provided, as needed, to ensure that workers are oriented. Workers with rescue and first-aid duties should receive dedicated training so as not to inadvertently aggravate exposures and health hazards to themselves or their coworkers. Training would include the risks of becoming infected with blood–borne pathogens through contact with bodily fluids and tissue. Through appropriate contract specifications and monitoring, the employer should ensure that service providers, as well as contracted and subcontracted labor, are trained adequately before assignments begin.	**FC**
<u>Area Signage, Labeling of Equipment, Communicate Hazard Codes</u>	
10.6. Hazardous areas (electrical rooms, compressor rooms, etc.), installations, materials, safety measures, and emergency exits, etc. should be marked appropriately. Signage should be in accordance with international standards and be well known to, and easily understood by workers, visitors and the general public as appropriate.	**FC**

10.7. All vessels that may contain substances that are hazardous as a result of chemical or toxicological properties, or temperature or pressure, should be labeled as to the contents and hazard, or appropriately color coded. Similarly, piping systems that contain hazardous substances should be labeled with the direction of flow and contents of the pipe, or color coded whenever the pipe passing through a wall or floor is interrupted by a valve or junction device.	**PC**
10.8. Copies of the hazard coding system should be posted outside the facility at emergency entrance doors and fire emergency connection systems.	**PC**
10.9. Information regarding the types of hazardous materials stored, handled or used at the facility, including typical maximum inventories and storage locations, should be shared proactively with emergency services and security personnel to expedite emergency response when needed.	**PC**
10.10. Representatives of local emergency and security services should be invited to participate in periodic (annual) orientation tours and site inspections to ensure familiarity with potential hazards present.	**Not assessed**
11. Physical Hazards	
Rotating and Moving Equipment	
11.1. Machines design should eliminate trap hazards and ensuring that extremities are kept out of harm's way under normal operating conditions. Where a machine or equipment has an exposed moving part or exposed pinch point that may endanger the safety of any worker, the machine or equipment should be equipped with, and protected by, a guard or other device that prevents access to the moving part or pinch point. Guards should be designed and installed in conformance with appropriate machine safety standards.	**FC**
11.2. Turning off, disconnecting, isolating, and de-energising machinery with exposed or guarded moving parts, or in which energy can be stored (e.g. compressed air, electrical components) during servicing or maintenance, in conformance with a standard such as c.	**FC**
11.3. Designing and installing equipment, where feasible, to enable routine service, such as lubrication, without removal of the guarding devices or mechanisms.	**Not assessed**
Noise	
11.4. No employee should be exposed to a noise level greater than 85 dB(A) for a duration of more than 8 hours per day without hearing protection. In addition, no unprotected ear should be exposed to a peak sound pressure level (instantaneous) of more than 140 dB(C).	**FC Noise control procedure TNP-PCD-HSM-GEN-041**

11.5. The use of hearing protection should be enforced actively when the equivalent sound level over 8 hours reaches 85 dB(A), the peak sound levels reach 140 dB(C), or the average maximum sound level reaches 110dB(A). Hearing protective devices provided should be capable of reducing sound levels at the ear to at least 85 dB(A).	**FC Noise control procedure TNP-PCD-HSM-GEN-041**
11.6. For every 3 dB(A) increase in sound levels, the 'allowed' exposure period or duration should be reduced by 50 percent.	**FC Noise control procedure TNP-PCD-HSM-GEN-041**
11.7. Prior to the issuance of hearing protective devices as the final control mechanism, use of acoustic insulating materials, isolation of the noise source, and other engineering controls should be investigated and implemented.	**FC Noise control procedure TNP-PCD-HSM-GEN-041**
11.8. Periodic medical hearing checks should be performed on workers exposed to high noise levels.	**Not assessed**
<u>Vibration</u>	
11.9. Exposure to hand-arm vibration from equipment such as hand and power tools, or whole-body vibrations from surfaces on which the worker stands or sits, should be controlled through choice of equipment, installation of vibration dampening pads or devices, and limiting the duration of exposure. Exposure levels should be checked on the basis of daily exposure time and data provided by equipment manufacturers.	**Not assessed**
<u>Electrical</u>	
11.10. All energised electrical devices and lines should be marked with warning signs.	**FC** **Electrical Safety Procedure TNP-PCD-HSM-GEN-051**
11.11. Devices should be locked out (de- charging and leaving open with a controlled locking device) and tagged-out (warning sign placed on the lock) during service or maintenance.	**FC** **Energy isolation Procedure TNP-PCD-HSM-GEN-087**
11.12. All electrical cords, cables, and hand power tools should be checked for frayed or exposed cords. Manufacturer recommendations for maximum permitted operating voltage of the portable hand tools should be followed.	**FC** **Electrical Safety Procedure TNP-PCD-HSM-GEN-051**

11.13. Double insulating / grounding should be applied for all electrical equipment used in environments that are, or may become, wet; using equipment with ground fault interrupter (GFI) protected circuits.	**FC** **Electrical Safety Procedure TNP-PCD-HSM-GEN-051**
11.14. Power cords and extension cords should be protected against damage from traffic by shielding or suspending above traffic areas.	**FC** **Electrical Safety Procedure TNP-PCD-HSM-GEN-051**
11.15. Use of appropriate labeling of service rooms housing high voltage equipment ('electrical hazard') and where entry is controlled or prohibited.	**FC** **Electrical Safety Procedure TNP-PCD-HSM-GEN-051**
11.16. "No Approach" zones should be established around or under high voltage power lines.	**FC** **Electrical Safety Procedure TNP-PCD-HSM-GEN-051**
11.17. Rubber tired construction or other vehicles that come into direct contact with, or arcing between, high voltage wires may need to be taken out of service for periods of 48 hours and have the tires replaced to prevent catastrophic tire and wheel assembly failure, potentially causing serious injury or death.	**FC** **Electrical Safety Procedure TNP-PCD-HSM-GEN-051**
11.18. Conduct detailed identification and marking of all buried electrical wiring prior to any excavation work.	**FC** **Electrical Safety Procedure TNP-PCD-HSM-GEN-051**
<u>Eye Hazards</u>	
11.19. Use of machine guards or splash shields and/or face and eye protection devices, such as safety glasses with side shields, goggles, and/or a full face shield. Machine and equipment guarding should conform to standards published by organisations such as CSA, ANSI and ISO.	**FC**

11.20. Moving areas where the discharge of solid fragments, liquid, or gaseous emissions can reasonably be predicted away from places expected to be occupied or transited by workers or visitors. Where machine or work fragments could present a hazard to transient workers or passers-by, extra area guarding or proximity restricting systems should be implemented, or PPE required for transients and visitors.	**FC**
11.21. Provisions should be made for persons who have to wear prescription glasses either through the use over glasses or prescription hardened glasses.	**FC**
<u>Welding / Hot Work</u>	
11.22. Provision of proper eye protection such as welder goggles and/or a full-face eye shield for all personnel involved in, or assisting, welding operations. Additional methods may include the use of welding barrier screens around the specific work station (a solid piece of light metal, canvas, or plywood designed to block welding light from others). Devices to extract and remove noxious fumes at the source may also be required.	**FC**
11.23. Special hot work and fire prevention precautions and Standard Operating Procedures (SOPs) should be implemented if welding or hot cutting is undertaken outside established welding work stations, including 'Hot Work Permits, stand-by fire extinguishers, stand-by fire watch, and maintaining the fire watch for up to one hour after welding or hot cutting has terminated. Special procedures are required for hot work on tanks or vessels that have contained flammable materials.	**FC**
<u>Industrial Vehicle Driving and Site Traffic</u>	
11.24. Provide training and licensing industrial vehicle Operators in the safe operation of specialised vehicles such as forklifts, including safe loading/unloading, load limits.	**FC**
11.25. Ensure moving equipment with restricted rear visibility is outfitted with audible back-up alarms.	**FC**
11.26. Establish rights-of-way, site speed limits, vehicle inspection requirements, operating rules and procedures, and control of traffic patterns or direction. Restrict the circulation of delivery and private vehicles to defined routes and areas, giving preference to 'one-way' circulation, where appropriate.	**FC**
<u>Working Environment Temperature</u>	

11.27. Extreme temperatures in permanent work environments should be avoided through implementation of engineering controls and ventilation.	**Not assessed**
11.28. Monitor weather forecasts for outdoor work to provide advance warning of extreme weather and scheduling work accordingly. Provide temporary shelters to protect against the elements during working activities or for use as rest areas.	**Not assessed**
11.29. Adjustment of work and rest periods should be regulated according to temperature stress management procedures provided by ACGIH67, depending on the temperature and workloads.	**Not assessed**
11.30. Personnel should be provided with protective clothing and access to adequate hydration such as drinking water or electrolyte drinks. Consumption of alcoholic beverages should be avoided.	**FC**
Ergonomics, Repetitive Motion, Manual Handling	
11.31. Use of mechanical assists to eliminate or reduce exertions required to lift materials, hold tools and work objects, and requiring multi-person lifts if weights exceed thresholds.	**FC**
11.32. Selecting and designing tools that reduce force requirements and holding times, and improve postures.	**FC**
11.33. Provide user with adjustable work stations.	**FC**
11.34. Incorporating rest and stretch breaks into work processes, and conducting job rotation.	**FC**
11.35. Implement quality control and maintenance programs that reduce unnecessary forces and exertions.	**FC**
11.36. Take into consideration additional special conditions such as left handed persons.	**Not assessed**
Working at Heights	

11.37. Provide installation of guardrails with mid-rails and toe boards at the edge of any fall hazard area.	**FC**
11.38. Ladders and scaffolds should be properly used by trained employees.	**FC**
11.39. Use of fall prevention devices, including safety belt and lanyard travel limiting devices to prevent access to fall hazard area, or fall protection devices such as full body harnesses used in conjunction with shock absorbing lanyards or self-retracting inertial fall arrest devices attached to fixed anchor point or horizontal life-lines.	**FC**
11.40. Provide personnel with appropriate training in use, serviceability, and integrity of the necessary PPE.	**FC**
11.41. Inclusion of rescue and/or recovery plans, and equipment to respond to workers after an arrested fall.	**FC**
Illumination	
11.42. Work area light intensity should be adequate for the general purpose of the location and type of activity, and should be supplemented with dedicated work station illumination, as needed.	**FC**
11.43. Emergency lightening should be provided in case of tripping the main light source.	**FC**
12. Chemical Hazards	
Air Quality	
12.1. Maintain levels of contaminant dusts, vapors and gases in the work environment at concentrations below those recommended by the ACGIH as TWA-TLV's (threshold limit value)—concentrations to which most workers can be exposed repeatedly (8 hours/day, 40 hrs/week, week-after week), without sustaining adverse health effects.	**FC**
12.2. Developing and implementing work practices to minimise release of contaminants into the work environment.	**FC**

12.3. Where ambient air contains several materials that have similar effects on the same body organs (additive effects), taking into account combined exposures using calculations recommended by the ACGIH. Where work shifts extend beyond eight (8) hours, calculating adjusted workplace exposure criteria recommended by the ACGIH.	**FC**
<u>Fire and Explosions</u>	
12.4. Flammables should be stored away from ignition sources and oxidising materials. Further, flammables storage area should be: • Remote from entry and exit points into buildings; • Away from facility ventilation intakes or vents; • Have natural or passive floor and ceiling level ventilation and explosion venting; • Use spark-proof fixtures; • Be equipped with fire extinguishing devices and self-closing doors.	**PC**
12.5. Provide bonding and grounding of, and between, containers and additional mechanical floor level ventilation if materials are being, or could be, dispensed in the storage area.	**FC**
12.6. Where the flammable material is mainly comprised of dust, provide electrical grounding, spark detection, and, if needed, quenching systems.	**Not applicable**
12.7. Define and label fire hazards areas to warn of special rules (e.g. prohibition in use of smoking materials, cellular phones, or other potential spark generating equipment).	**FC**
12.8. Provide specific worker training in handling of flammable materials, and in fire prevention or suppression.	**FC**
<u>Corrosive, oxidising, and reactive chemicals</u>	

12.9. Corrosive, oxidising and reactive chemicals should be segregated from flammable materials and from other chemicals of incompatible class (acids vs. bases, oxidisers vs. reducers, water sensitive vs. water based, etc.), stored in ventilated areas and in containers with appropriate secondary containment to minimise intermixing during spills. Workers who are required to handle corrosive, oxidising, or reactive chemicals should be provided with specialised training and provided with, and wear, appropriate PPE (gloves, apron, splash suits, face shield or goggles, etc.).	**PC**
<u>Asbestos Containing Materials (ACM)</u>	
12.10. The use of asbestos containing materials (ACM) should be avoided in new buildings or as a new material in remodeling or renovation activities. Existing facilities with ACM should develop an asbestos management plan which clearly identifies the locations where the ACM is present, its condition, procedures for monitoring its condition, procedures to access the locations where ACM is present to avoid damage, and training of staff who can potentially come into contact with the material. The plan should be made available to all persons involved in operations and maintenance activities. Repair or removal and disposal of existing ACM in buildings should only be performed by specially trained personnel following host country requirements, or in their absence, internationally recognised procedures.	**FC**
13. Biological Hazards	
<u>Measures to prevent biological hazards</u>	
13.1. If the nature of the activity permits, use of any harmful biological agents should be avoided and replaced with an agent that, under normal conditions of use, is not dangerous or less dangerous to workers. If use of harmful agents cannot be avoided, precautions should be taken to keep the risk of exposure as low as possible and maintained below internationally established and recognised exposure limits.	**Not Assessed**
13.2. Work processes, engineering, and administrative controls should be designed, maintained, and operated to avoid or minimise release of biological agents into the working environment. The number of employees exposed or likely to become exposed should be kept at a minimum.	**Not Assessed**
13.3. The employer should review and assess known and suspected presence of biological agents at the place of work and implement appropriate safety measures, monitoring, training, and training verification programs.	**Not Assessed**
13.4. Measures to eliminate and control hazards from known and suspected biological agents at the place of work should be designed, implemented and maintained in close co-operation with the local health authorities and according to recognised international standards.	**Not Assessed**
13.5. Work involving agents in Groups 3 and 4 should be restricted only to those persons who have received specific verifiable training in working with and controlling such materials. Areas used for the handling of Groups 3 and 4 biological agents should be designed to enable their	**Not Assessed**

full segregation and isolation in emergency circumstances, include independent ventilation systems, and be subject to SOPs requiring routine disinfection and sterilisation of the work surfaces.	
14. Radiological Hazards	
Acceptable effective dose limits for workplace radiological hazards	**Not Assessed**
14.1. Places of work involving occupational and/or natural exposure to ionising radiation should be established and operated in accordance with recognised international safety standards and guidelines. The acceptable effective dose limits appear: • Five consecutive year average – effective dose– 20 mSv/year for workers (min. 19 years of age); • Single year exposure– effective dose– 50 mSv/year for workers (min. 19 years of age); 6 mSv/year for apprentices and students (16-18 years of age); • Equivalent dose to the lens of the eye –150 mSv/year for workers (min. 19 years of age); 50 mSv/year for apprentices and students (16-18 years of age); • Equivalent dose to the extremities (hands, feet) or the skin – 500 mSv/year for workers (min. 19 years of age); 150 mSv/year for apprentices and students (16-18 years of age).	**Not Assessed**
14.2. Exposure to non-ionising radiation (including static magnetic fields; sub-radio frequency magnetic fields; static electric fields; radio frequency and microwave radiation; light and near-infrared radiation; and ultraviolet radiation) should be controlled to internationally recommended limits.	**Not Assessed**
14.3. In the case of both ionising and non- ionising radiation, the preferred method for controlling exposure is shielding and limiting the radiation source. Personal protective equipment is supplemental only or for emergency use. Personal protective equipment for near-infrared, visible and ultraviolet range radiation can include appropriate sun block creams, with or without appropriate screening clothing.	**Not Assessed**
15. Personal Protective Equipment (PPE)	
Providing Personal Protective Equipment (PPE) for workers additional protection	
15.1. Worker, co-workers, and occasional visitors should be provided with appropriate PPE that offers adequate protection.	**FC**

15.2. Proper maintenance of PPE should include cleaning when dirty and replacement when damaged or worn out. Proper use of PPE should be part of the recurrent training programs for employees.	**FC**
15.3. Selection of PPE should be based on the hazard and risk ranking and selected according to criteria on performance and testing established.	**FC**
16. Special Hazard Environments	
Confined Space	
16.1. Engineering measures should be implemented to eliminate, to the degree feasible, the existence and adverse character of confined spaces.	**FC**
16.2. Permit-required confined spaces should be provided with permanent safety measures for venting, monitoring, and rescue operations, to the extent possible. The area adjoining an access to a confined space should provide ample room for emergency and rescue operations. 16.3. Access hatches should accommodate 90% of the worker population with adjustments for tools and protective clothing.	**FC**
16.4. Prior to entry into a permit-required confined space: • Process or feed lines into the space should be disconnected or drained, and blanked and locked-out; • Mechanical equipment in the space should be disconnected, de-energised, locked-out, and braced, as appropriate; • The atmosphere within the confined space should be tested to assure the oxygen content is between 19.5 percent and 23 percent, and that the presence of any flammable gas or vapour does not exceed 25 percent of its respective Lower Explosive Limit (LEL); • If the atmospheric conditions are not met, the confined space should be ventilated until the target safe atmosphere is achieved, or entry is only to be undertaken with appropriate and additional PPE.	**FC**
16.5. Safety precautions should include Self Contained Breathing Apparatus (SCBA), life lines, and safety watch workers stationed outside the confined space, with rescue and first aid equipment readily available.	**FC**

16.6. Before workers are required to enter a permit-required confined space, adequate and appropriate training in confined space hazard control, atmospheric testing, use of the necessary PPE, as well as the serviceability and integrity of the PPE should be verified. Further, adequate and appropriate rescue and / or recovery plans and equipment should be in place before the worker enters the confined space.	**FC**
Lone and Isolated Workers	
16.7. Where workers may be required to perform work under lone or isolated circumstances, Standard Operating Procedures (SOPs) should be developed and implemented to ensure all PPE and safety measures are in place before the worker starts work. SOPs should establish, at a minimum, verbal contact with the worker at least once every hour, and ensure the worker has a capability for summoning emergency aid.	**Not assessed**
16.8. If the worker is potentially exposed to highly toxic or corrosive chemicals, emergency eye-wash and shower facilities should be equipped with audible and visible alarms to summon aid whenever the eye- wash or shower is activated by the worker and without intervention by the worker.	**Not assessed**
17. Monitoring	
Occupational health and safety monitoring program	
17.1. The occupational health and safety monitoring program should be developed. It should include the following: • regular inspection and testing of all safety features and hazard control measures; • surveillance of the working environment: Employers should document compliance using an appropriate combination of portable and stationary sampling and monitoring instruments; • surveillance of workers health; • training activities for employees and visitors should be adequately monitored and documented.	**PC**
Accidents and Diseases monitoring	
17.2. The employer should establish procedures and systems for reporting and recording:	**FC**

• Occupational accidents and diseases; • Dangerous occurrences and incidents. • These systems should enable workers to report immediately to their immediate supervisor any situation they believe presents a serious danger to life or health. The systems and the employer should further enable and encourage workers to report to management all: • Occupational injuries and near misses; • Suspected cases of occupational disease; • Dangerous occurrences and incidents.	
17.3. All reported occupational accidents, occupational diseases, dangerous occurrences, and incidents together with near misses should be investigated with the assistance of a person knowledgeable/competent in occupational safety.	**FC**
Community Health and Safety	
18. Water Quality and Availability	
18.1. Project activities involving wastewater discharges, water extraction, diversion or impoundment should prevent adverse impacts to the quality and availability of groundwater and surface water resources.	**FC**
18.2. Drinking water sources, whether public or private, should at all times be protected so that they meet or exceed applicable national acceptability standards or in their absence the current edition of WHO Guidelines for Drinking-Water Quality.	**FC**
18.3. The potential effect of groundwater or surface water abstraction for Project activities should be properly assessed through a combination of field testing and modeling techniques, accounting for seasonal variability and Projected changes in demand in the Project area.	**FC**
18.4. Project activities should not compromise the availability of water for personal hygiene needs and should take account of potential future increases in demand.	**FC**
19. Structural Safety of Project Infrastructure	

19.1. The following issues should be considered and incorporated as appropriate into the planning, siting, and design phases of a Project: • Inclusion of buffer strips or other methods of physical separation around Project sites to protect the public from major hazards associated with hazardous materials incidents or process failure, as well as nuisance issues related to noise, odours, or other emissions; • Incorporation of siting and safety engineering criteria to prevent failures due to natural risks posed by earthquakes, tsunamis, wind, flooding, landslides and fire. To this end, all Project structures should be designed in accordance with engineering and design criteria mandated by site-specific risks, including but not limited to seismic activity, slope stability, wind loading, and other dynamic loads.	**FC**
20. Life and Fire Safety	
20.1. All new buildings should be designed, constructed, and operated in full compliance with local building codes, local fire department regulations, local legal/insurance requirements.	**FC**
21. Traffic Safety	
21.1. Traffic safety should be promoted by all Project personnel during displacement to and from the workplace, and during operation of Project equipment on private or public roads.	**FC**
21.2. Road safety initiatives proportional to the scope and nature of Project activities should include: • Adoption of best transport safety practices across all aspects of Project operations with the goal of preventing traffic accidents and minimising injuries suffered by Project personnel and the public; • Regular maintenance of vehicles and use of manufacturer approved parts to minimise potentially serious accidents caused by equipment malfunction or premature failure. • Where the Project may contribute to a significant increase in traffic along existing roads, or where road transport is a significant component of a Project, recommended measures include: • Minimising pedestrian interaction with construction vehicles;	**FC**

• Collaboration with local communities and responsible authorities to improve signage, visibility and overall safety of roads; • Coordination with emergency responders to ensure that appropriate first aid is provided in the event of accidents; • Using locally sourced materials, whenever possible, to minimise transport distances; • Employing safe traffic control measures.	
22. Transport of Hazardous Materials	
22.1. The procedures for transportation of hazardous materials (Hazmats) should include: • Proper labelling of containers, including the identify and quantity of the contents, hazards, and shipper contact information; • Ensuring that the volume, nature, integrity and protection of packaging and containers used for transport are appropriate for the type and quantity of hazardous material and modes of transport involved; • Ensuring adequate transport vehicle specifications; • Training employees involved in the transportation of hazardous materials regarding proper shipping procedures and emergency procedures; • Providing the necessary means for emergency response on call 24 hours/day.	**PC**
22.2. Guidance related to major transportation hazards should be implemented in addition to measures presented in the preceding section for preventing or minimising the consequences of catastrophic releases of hazardous materials, which may result in toxic, fire, explosion, or other hazards during transportation. Projects which transport hazardous materials at or above the threshold quantities should prepare a Hazardous Materials Transportation Plan.	**Not assessed**
22.3. Procedures and practices for the handling of hazardous materials and Emergency Preparedness and Response Plan should be developed for quick and efficient responses to accidents that may result in injury or environmental damage.	**FC**
23. Disease Prevention	

Communicable Diseases	
23.1. Recommended interventions at the Project level include: • Providing surveillance and active screening and treatment of workers; • Undertaking health awareness and education initiatives, for example, by implementing an information strategy to reinforce person-to-person counselling addressing systemic factors that can influence individual behaviour as well as promoting individual protection, and protecting others from infection, by encouraging condom use; • Training health workers in disease treatment; • Conducting immunisation programs for workers in local communities to improve health and guard against infection; • Providing treatment through standard case management in on-site or community health care facilities; • Promoting collaboration with local authorities to enhance access of workers families and the community to public health services and promote immunisation.	**FC**
Vector-Borne Diseases	
23.2. Client in close collaboration with community health authorities, can implement an integrated control strategy for mosquito and other arthropod-borne diseases that might involve: • Prevention of larval and adult propagation through sanitary improvements and elimination of breeding habitats close to human settlements; • Elimination of unusable impounded water; • Increase in water velocity in natural and artificial channels; • Considering the application of residual insecticide to dormitory walls;	**FC**

• Promoting use of repellents, clothing, netting, and other barriers to prevent insect bites, and other measures.	
24. Emergency Preparedness and Response	
Communication Systems	
24.1. Alarm bells, visual alarms, or other forms of communication should be used to reliably alert workers to an emergency.	**FC**
24.2. Testing warning systems at least annually (fire alarms monthly), and more frequently if required by local regulations, equipment, or other considerations.	**FC**
24.3. Installing a back-up system for communications on-site with off-site resources, in the event that normal communication methods may be inoperable during an emergency.	**FC**
24.4. If a local community may be at risk from a potential emergency arising at the facility, the company should implement communication measures to alert the community.	**PC – see IFC PS4**
24.5. Emergency information should be communicated to the media through: • A trained, local spokesperson able to interact with relevant stakeholders, and offer guidance to the company for speaking to the media, government, and other agencies; • Written press releases with accurate information, appropriate level of detail for the emergency, and for which accuracy can be guaranteed.	**PC – see IFC PS4**
Emergency Resources	
24.6. A mechanism should be provided for funding emergency activities.	**Not assessed**
24.7. The company should consider the level of local fire fighting capacity and whether equipment is available for use at the facility in the event of a major emergency or natural disaster. If insufficient capacity is available, firefighting capacity should be acquired that may include pumps, water supplies, trucks, and training for personnel.	**PC – see IFC PS4**

24.8. The company should provide first aid attendants for the facility as well as medical equipment suitable for the personnel, type of operation, and the degree of treatment likely to be required prior to transportation to hospital.	**FC**
24.9. Appropriate measures for managing the availability of resources in case of an emergency should include: • Maintaining a list of external equipment, personnel, facilities, funding, expert knowledge, and materials that may be required to respond to emergencies; • Providing personnel who can readily call up resources, as required; • Tracking and managing the costs associated with emergency resources; • Considering the quantity, response time, capability, limitations, and cost of these resources, for both site-specific emergencies, and community or regional emergencies; • Considering if external resources are unable to provide sufficient capacity during a regional emergency and whether additional resources may need to be maintained on-site.	**FC**
24.10. Where appropriate, mutual aid agreements should be maintained with other organisations to allow for sharing of personnel and specialised equipment.	**PC – see IFC PS4**
24.11. The company should develop a list of contact information for all internal and external resources and personnel. The list should be maintained annually.	**FC**
25. Training and Updating	
25.1. Training programs and practice exercises should be provided for testing systems to ensure an adequate level of emergency preparedness.	**FC**
25.2. Training should be conducted annually and perhaps more frequently, when the response includes specialised equipment, procedures, or hazards, or when otherwise mandated.	**FC**

25.3. Provide training exercises to allow personnel the opportunity to test emergency preparedness.	**FC**
26. Business Continuity and Contingency	
26.1. Measures to address business continuity and contingency should include the following: • Identifying replacement supplies or facilities to allow business continuity following an emergency; • Using redundant or duplicate supply systems as part of facility operations to increase the likelihood of business continuity; • Maintaining back-ups of critical information in a secure location to expedite the return to normal operations following an emergency.	**FC**

Appendix E Assessment Tables - World Bank Safeguard Policies

OP 4.01 Environmental Assessment

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP401.01/1	1. The Bank requires environmental assessment (EA) of Projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making.	Not Assessed during IESC monitoring. It is assumed that the Project ESIA compliance with OP4.01 was completed during the due diligence phase.	**Not assessed**
OP401.01/2	2. EA is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed Project. EA evaluates a Project's potential environmental risks and impacts in its area of influence; examines Project alternatives; identifies ways of improving Project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout Project implementation. The Bank favours preventive measures over mitigatory or compensatory measures, whenever feasible.	Assess compliance to requirement for any new EA undertaken; i.e. Project changes or supplementary assessments.	**Not assessed**
OP401.01/3	3. EA takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and physical cultural resources); and transboundary and global environmental aspects. EA considers natural and social aspects in an integrated way. It also takes into account the variations in Project and country conditions; the findings of country environmental studies; national environmental action plans; the country's overall policy framework, national legislation, and institutional capabilities related to the environment and social aspects; and obligations of the country, pertaining to Project activities, under relevant international environmental treaties and agreements. The Bank does not finance Project activities that would contravene such country obligations, as identified during the EA. EA is initiated as early as possible in Project processing and is integrated closely with the economic, financial, institutional, social, and technical analyses of a proposed Project.	Assess compliance to requirement for any new EA undertaken; i.e. Project changes or supplementary assessments.	**Not assessed**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP401.01/4	4. The borrower is responsible for carrying out the EA. For Category A Projects, the borrower retains independent EA experts not affiliated with the Project to carry out the EA. For Category A Projects that are highly risky or contentious or that involve serious and multidimensional environmental concerns, the borrower should normally also engage an advisory panel of independent, internationally recognized environmental specialists to advise on all aspects of the Project relevant to the EA. The role of the advisory panel depends on the degree to which Project preparation has progressed, and on the extent and quality of any EA work completed, at the time the Bank begins to consider the Project.	Not Assessed during IESC monitoring. It is assumed that the Project ESIA compliance with OP4.01 was completed during the due diligence phase.	**Not assessed**
OP401.01/5	5. The Bank advises the borrower on the Bank's EA requirements. The Bank reviews the findings and recommendations of the EA to determine whether they provide an adequate basis for processing the Project for Bank financing. When the borrower has completed or partially completed EA work prior to the Bank's involvement in a Project, the Bank reviews the EA to ensure its consistency with this policy. The Bank may, if appropriate, require additional EA work, including public consultation and disclosure.	Not Assessed during IESC monitoring. It is assumed that the Project ESIA compliance with OP4.01 was completed during the due diligence phase.	**Not assessed**
OP401.01/6	6. The Pollution Prevention and Abatement Handbook describes pollution prevention and abatement measures and emission levels that are normally acceptable to the Bank. However, taking into account borrower country legislation and local conditions, the EA may recommend alternative emission levels and approaches to pollution prevention and abatement for the Project. The EA report must provide full and detailed justification for the levels and approaches chosen for the particular Project or site.	Assess compliance to requirement for any new EA undertaken; i.e. Project changes or supplementary assessments.	**Not assessed as no additional assessments undertaken requiring changes to emissions or pollution prevention.**
	EA Instruments		
OP401.01/7	7. Depending on the Project, a range of instruments can be used to satisfy the Bank's EA requirement: environmental impact assessment (EIA), regional or sectoral EA, strategic environmental and social assessment (SESA), environmental audit, hazard or risk assessment,	Assess compliance to requirement for any new EA undertaken; i.e.	**Not assessed**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	environmental management plan Operational Manual - OP 4.01 - Environmental Assessment. EA applies one or more of these instruments, or elements of them, as appropriate. When the Project is likely to have sectoral or regional impacts, sectoral or regional EA is required.	Project changes or supplementary assessments.	
	Environmental Screening		
OP401.01/8	8. The Bank undertakes environmental screening of each proposed Project to determine the appropriate extent and type of EA. The Bank classifies the proposed Project into one of four categories, depending on the type, location, sensitivity, and scale of the Project and the nature and magnitude of its potential environmental impacts. (a) Category A: A proposed Project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works. EA for a Category A Project examines the Project's potential negative and positive environmental impacts, compares them with those of feasible alternatives (including the "without Project" situation), and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. For a Category A Project, the borrower is responsible for preparing a report, normally an EIA (or a suitably comprehensive regional or sectoral EA) that includes, as necessary, elements of the other instruments referred to in para. 7. (b) Category B: A proposed Project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas--including wetlands, forests, grasslands, and other natural habitats--are less adverse than those of Category A Projects. These impacts are site-specific; few if any of them are irreversible; and in most cases mitigatory measures can be designed more readily than for Category A Projects. The scope of EA for a Category B Project may vary from Project to Project, but it is narrower than that of Category A EA. Like Category A EA, it examines the Project's potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and	Not Assessed during IESC monitoring. It is assumed that the Project ESIA compliance with OP4.01 was completed during the due diligence phase.	**Not assessed**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	improve environmental performance. The findings and results of Category B EA are described in the Project documentation (Project Appraisal Document and Project Information Document). (c) Category C: A proposed Project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category C Project. (d) Category FI: A proposed Project is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in subProjects that may result in adverse environmental impacts		
	EA for Special Project Types		
OP401.01/9	<u>Projects Involving SubProjects</u> 9. For Projects involving the preparation and implementation of annual investment plans or subProjects, identified and developed over the course of the Project period during the preparation of each proposed subProject, the Project coordinating entity or implementing institution carries out appropriate EA according to country requirements and the requirements of this policy. The Bank appraises and, if necessary, includes in the SIL components to strengthen, the capabilities of the coordinating entity or the implementing institution to (a) screen subProjects, (b) obtain the necessary expertise to carry out EA, (c) review all findings and results of EA for individual subProjects, (d) ensure implementation of mitigation measures (including, where applicable, an EMP), and (e) monitor environmental conditions during Project implementation. If the Bank is not satisfied that adequate capacity exists for carrying out EA, all Category A subProjects and, as appropriate, Category B subProjects--including any EA reports--are subject to prior review and approval by the Bank.	Not Assessed during IESC monitoring. It is assumed that the Project ESIA compliance with OP4.01 was completed during the due diligence phase.	**Not assessed**
OP401.01/10	<u>Projects Involving Financial Intermediaries</u> 10. For a Project involving a financial intermediary (FI), the Bank requires that each FI screen proposed subProjects and ensure that subborrowers carry out appropriate EA for each subProject. Before approving a subProject, the FI verifies (through its own staff, outside experts, or existing	Not Assessed during IESC monitoring. It is assumed that the Project ESIA compliance with OP4.01 was	**Not assessed**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	environmental institutions) that the subProject meets the environmental requirements of appropriate national and local authorities and is consistent with this OP and other applicable environmental policies of the Bank.	completed during the due diligence phase.	
OP401.01/11	11. In appraising a proposed FI operation, the Bank reviews the adequacy of country environmental requirements relevant to the Project and the proposed EA arrangements for subProjects, including the mechanisms and responsibilities for environmental screening and review of EA results. When necessary, the Bank ensures that the Project includes components to strengthen such EA arrangements. For FI operations expected to have Category A subProjects, prior to the Bank's appraisal each identified participating FI provides to the Bank a written assessment of the institutional mechanisms (including, as necessary, identification of measures to strengthen capacity) for its subProject EA work.17 If the Bank is not satisfied that adequate capacity exists for carrying out EA, all Category A subProjects and, as appropriate, Category B subProjects--including EA reports--are subject to prior review and approval by the Bank.18	Not Assessed during IESC monitoring. It is assumed that the Project ESIA compliance with OP4.01 was completed during the due diligence phase.	**Not assessed**
OP401.01/12	Projects in Situations of Urgent Need of Assistance or Capacity Constraints under OP 10.00 12. The policy set out in OP 4.01 normally applies to Projects processed under paragraph 11 of OP/BP 10.00, Investment Project Financing. However, when compliance with any requirement of this policy would prevent the effective and timely achievement of the objectives of such a Project, the Bank may (subject to the limitations set forth in paragraph 11 of OP 10.00) exempt the Project from such a requirement. The justification for any such exemption is recorded in the Project documents. In all cases, however, the Bank requires at a minimum that (a) the extent to which the situation of urgent need of assistance or the capacity constraints were precipitated or exacerbated by inappropriate environmental practices be determined as part of the preparation of such Projects, and (b) any necessary corrective measures be built into either the Project or a future lending operation.	Not Assessed during IESC monitoring. It is assumed that the Project ESIA compliance with OP4.01 was completed during the due diligence phase.	**Not assessed**
Institutional Capacity			

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP401.01/13	13. When the borrower has inadequate legal or technical capacity to carry out key EA-related functions (such as review of EA, environmental monitoring, inspections, or management of mitigatory measures) for a proposed Project, the Project includes components to strengthen that capacity.	Not Assessed during IESC monitoring. It is assumed that the Project ESIA compliance with OP4.01 was completed during the due diligence phase.	**Not assessed**
OP401.01/14	Public Consultation 14. For all Category A and B Projects proposed for IBRD or IDA financing, during the EA process, the borrower consults Project-affected groups and local nongovernmental organizations (NGOs) about the Project's environmental aspects and takes their views into account. The borrower initiates such consultations as early as possible. For Category A Projects, the borrower consults these groups at least twice: (a) shortly after environmental screening and before the terms of reference for the EA are finalized; and (b) once a draft EA report is prepared. In addition, the borrower consults with such groups throughout Project implementation as necessary to address EA-related issues that affect them.	Assess compliance to requirement for any new EA undertaken; i.e. Project changes or supplementary assessments.	**FC**
Disclosure			
OP401.01/15	15. For meaningful consultations between the borrower and Project-affected groups and local NGOs on all Category A and B Projects proposed for IBRD or IDA financing, the borrower provides relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.	Assess compliance to requirement for any new EA undertaken; i.e. Project changes or supplementary assessments.	**FC**
OP401.01/16	16. For a Category A Project, the borrower provides for the initial consultation a summary of the proposed Project's objectives, description, and potential impacts; for consultation after the draft EA report is prepared, the borrower provides a summary of the EA's conclusions. In addition, for a Category A Project, the borrower makes the draft EA report available at a public place accessible to Project-affected groups and local NGOs. For Projects described in paragraph 9 above, the borrower/FI ensures that EA reports for Category A subProjects are made available in a public place accessible to affected groups and local NGOs.	Assess compliance to requirement for any new EA undertaken; i.e. Project changes or supplementary assessments.	**FC**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP401.01/17	17. Any separate Category B report for a Project proposed for IDA financing is made available to Project-affected groups and local NGOs. Public availability in the borrowing country and official receipt by the Bank of Category A reports for Projects proposed for IBRD or IDA financing, and of any Category B EA report for Projects proposed for IDA funding, are prerequisites to Bank appraisal of these Projects.	Assess compliance to requirement for any new EA undertaken; i.e. Project changes or supplementary assessments.	**NA**
OP401.01/18	18. Once the borrower officially transmits the Category A EA report to the Bank, the Bank distributes the summary (in English) to the executive directors (EDs) and makes the report available through its InfoShop. Once the borrower officially transmits any separate Category B EA report to the Bank, the Bank makes it available through its InfoShop. If the borrower objects to the Bank's releasing an EA report through the World Bank InfoShop, Bank staff (a) do not continue processing an IDA Project, or (b) for an IBRD Project, submit the issue of further processing to the EDs.	Not Assessed during IESC monitoring. It is assumed that the Project ESIA compliance with OP4.01 was completed during the due diligence phase.	**Not assessed**
Implementation			
OP401.01/19	19. During Project implementation, the borrower reports on (a) compliance with measures agreed with the Bank on the basis of the findings and results of the EA, including implementation of any EMP, as set out in the Project documents; (b) the status of mitigatory measures; and (c) the findings of monitoring programs. The Bank bases supervision of the Project's environmental aspects on the findings and recommendations of the EA, including measures set out in the legal agreements, any EMP, and other Project documents.	IESC to review compliance with reporting obligations as stated in ESAP and compliance with ESIA and other internal obligations as outline in Section 4 of assessment report.	**FC**

OP 4.04 Natural Habitats

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.04/1	1. The conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long-term sustainable development. The Bank therefore supports the protection, maintenance, and rehabilitation of natural habitats and their functions in its economic and sector work, Project financing, and policy dialogue. The Bank supports, and expects borrowers to apply, a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development.	Assess Project implementation of the BAP as per Section 4.	**FC**
	Economic and Sector Work		
OP4.04/2	2. The Bank's economic and sector work includes identification of (a) natural habitat issues and special needs for natural habitat conservation, including the degree of threat to identified natural habitats (particularly critical natural habitats), and (b) measures for protecting such areas in the context of the country's development strategy. As appropriate, Country Assistance Strategies and Projects incorporate findings from such economic and sector work.	Assess Project implementation of the BAP as per Section 4.	**FC**
	Project Design and Implementation		
OP4.04/3	3. The Bank promotes and supports natural habitat conservation and improved land use by financing Projects designed to integrate into national and regional development the conservation of natural habitats and the maintenance of ecological functions. Furthermore, the Bank promotes the rehabilitation of degraded natural habitats.	Assess Project implementation of the BAP as per Section 4.	**FC**
OP4.04/4	4. The Bank does not support Projects that, in the Bank's opinion, involve the significant conversion or degradation of critical natural habitats.		**FC**
OP4.04/5	5. Wherever feasible, Bank-financed Projects are sited on lands already converted (excluding any lands that in the Bank's opinion were converted in anticipation of the Project). The Bank does not support Projects involving the significant conversion of natural habitats unless there are no feasible alternatives for		**FC**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	the Project and its siting, and comprehensive analysis demonstrates that overall benefits from the Project substantially outweigh the environmental costs. If the environmental assessment indicates that a Project would significantly convert or degrade natural habitats, the Project includes mitigation measures acceptable to the Bank. Such mitigation measures include, as appropriate, minimizing habitat loss (e.g., strategic habitat retention and post-development restoration) and establishing and maintaining an ecologically similar protected area. The Bank accepts other forms of mitigation measures only when they are technically justified.		
OP4.04/6	6. In deciding whether to support a Project with potential adverse impacts on a natural habitat, the Bank takes into account the borrower's ability to implement the appropriate conservation and mitigation measures. If there are potential institutional capacity problems, the Project includes components that develop the capacity of national and local institutions for effective environmental planning and management. The mitigation measures specified for the Project may be used to FCenhance the practical field capacity of national and local institutions.		**FC**
OP4.04/7	7. In Projects with natural habitat components, Project preparation, appraisal, and supervision arrangements include appropriate environmental expertise to ensure adequate design and implementation of mitigation measures.		**FC**
OP4.04/8	8. This policy applies to subProjects under sectoral loans or loans to financial intermediaries. Regional environmental sector units oversee compliance with this requirement.		**FC**
	Policy Dialogue		
OP4.04/9	9. The Bank encourages borrowers to incorporate into their development and environmental strategies analyses of any major natural habitat issues, including identification of important natural habitat sites, the ecological functions they perform, the degree of threat to the sites, priorities for conservation, and associated recurrent-funding and capacity-building needs.	Assess Project implementation of the BAP as per Section 4.	**FC**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.04/10	10. The Bank expects the borrower to take into account the views, roles, and rights of groups, including local nongovernmental organizations and local communities,6 affected by Bank-financed Projects involving natural habitats, and to involve such people in planning, designing, implementing, monitoring, and evaluating such Projects. Involvement may include identifying appropriate conservation measures, managing protected areas and other natural habitats, and monitoring and evaluating specific Projects. The Bank encourages governments to provide such people with appropriate information and incentives to protect natural habitats.		**FC**

OP 4.09 Pest Management

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.09/1	1. In assisting borrowers to manage pests that affect either agriculture or public health, the Bank supports a strategy that promotes the use of biological or environmental control methods and reduces reliance on synthetic chemical pesticides. In Bank-financed Projects, the borrower addresses pest management issues in the context of the Project's environmental assessment.	Assessed through reviews of compliance with ESIA commitments relevant to pest management including the BAP, Health and Safety Management Plans and other specific ESMP's.	**FC** **See Appendix 1 PS3.17**
OP4.09/2	2. In appraising a Project that will involve pest management, the Bank assesses the capacity of the country's regulatory framework and institutions to promote and support safe, effective, and environmentally sound pest management. As necessary, the Bank and the borrower incorporate in the Project components to strengthen such capacity.		
	Agricultural Pest Management		
OP4.09/3	3. The Bank uses various means to assess pest management in the country and support integrated pest management (IPM) and the safe use of agricultural pesticides: economic and sector work, sectoral or Project-specific environmental assessments, participatory IPM assessments, and investment Projects and components aimed specifically at supporting the adoption and use of IPM.	Assessed through reviews of compliance with ESIA commitments relevant to pest management including the BAP, Health and Safety Management Plans and other specific ESMP's.	**FC** **See Appendix 1 PS3.17**
OP4.09/4	4. In Bank-financed agriculture operations, pest populations are normally controlled through IPM approaches, such as biological control, cultural practices, and the development and use of crop varieties that are resistant or tolerant to the pest. The Bank may finance the purchase of pesticides when their use is justified under an IPM approach.		
	Pest Management in Public Health		
OP4.09/5	5. In Bank-financed public health Projects, the Bank supports controlling pests primarily through environmental methods. Where environmental methods alone are not effective, the Bank may finance the use of pesticides for control of disease vectors.	Assessed through reviews of compliance with ESIA commitments relevant to pest management including the BAP, Health and Safety Management	**FC** **See Appendix 1 PS3.17**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
		Plans and other specific ESMP's.	
	Criteria for Pesticide Selection and Use		
OP4.09/6	6. The procurement of any pesticide in a Bank-financed Project is contingent on an assessment of the nature and degree of associated risks, taking into account the proposed use and the intended users. With respect to the classification of pesticides and their specific formulations, the Bank refers to the World Health Organization's Recommended Classification of Pesticides by Hazard and Guidelines to Classification (Geneva: WHO 1994-95). The following criteria apply to the selection and use of pesticides in Bank-financed Projects: (a) They must have negligible adverse human health effects. (b) They must be shown to be effective against the target species. (c) They must have minimal effect on nontarget species and the natural environment. The methods, timing, and frequency of pesticide application are aimed to minimize damage to natural enemies. Pesticides used in public health programs must be demonstrated to be safe for inhabitants and domestic animals in the treated areas, as well as for personnel applying them. (d) Their use must take into account the need to prevent the development of resistance in pests.	Assessed through reviews of compliance with ESIA commitments relevant to pest management including the BAP, Health and Safety Management Plans and other specific ESMP's.	**FC** **See Appendix FC** **See Appendix 1 PS3.17**
OP4.09/7	7. The Bank requires that any pesticides it finances be manufactured, packaged, labelled, handled, stored, disposed of, and applied according to standards acceptable to the Bank. The Bank does not finance formulated products that fall in WHO classes IA and IB, or formulations of products in Class II, if (a) the country lacks restrictions on their distribution and use; or (b) they are likely to be used by, or be accessible to, lay personnel, farmers, or others without training, equipment, and facilities to handle, store, and apply these products properly.		**FC** **See Appendix 1 PS3.17**

OP 4.36 Forestry

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	Policy Objectives		
OP4.36/1	1. The management, conservation, and sustainable development of forest ecosystems and their associated resources are essential for lasting poverty reduction and sustainable development, whether located in countries with abundant forests or in those with depleted or naturally limited forest resources. The objective of this policy is to assist borrowers to harness the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development, and protect the vital local and global environmental services and values of forests.	No assessment required	**N/A**
OP4.36/2	2. Where forest restoration and plantation development are necessary to meet these objectives, the Bank assists borrowers with forest reiion activities that maintain or enhance biodiversity and ecosystem functionality. The Bank also assists borrowers with the establishment and sustainable management of environmentally appropriate, socially beneficial, and economically viable forest plantations to help meet growing demands for forest goods and services.		**N/A**
	Scope of Policy		
OP4.36/3	3. This policy applies to the following types of Bank-financed investment Projects: (a) Projects that have or may have impacts on the health and quality of forests; (b) Projects that affect the rights and welfare of people and their level of dependence upon or interaction with forests; and (c) Projects that aim to bring about changes in the management, protection, or utilization of natural forests or plantations, whether they are publicly, privately, or communally owned.	No assessment required	**N/A**
	Country Assistance Programs		

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.36/4	4. The Bank uses environmental assessments, poverty assessments, social analyses, Public Expenditure Reviews, and other economic and sector work to identify the economic, environmental, and social significance of forests in its borrowing countries. When the Bank identifies the potential for its Country Assistance Strategy (CAS) to have a significant impact on forests, it integrates strategies for addressing that impact into the CAS.	No assessment required	**N/A**
	Bank Financing		
OP4.36/5	5. The Bank does not finance Projects that, in its opinion, would involve significant conversion or degradation of critical forest areas or related critical natural habitats. If a Project involves the significant conversion or degradation of natural forests or related natural habitats that the Bank determines are not critical, and the Bank determines that there are no feasible alternatives to the Project and its siting, and comprehensive analysis demonstrates that overall benefits from the Project substantially outweigh the environmental costs, the Bank may finance the Project provided that it incorporates appropriate mitigation measures.	Assessed through review of BAP implementation (Section 4) and compliance PR6 in Appendix 1.	**FC**
OP4.36/6	6. The Bank does not finance Projects that contravene applicable international environmental agreements. Plantations		
OP4.36/7	7. The Bank does not finance plantations that involve any conversion or degradation of critical natural habitats, including adjacent or downstream critical natural habitats. When the Bank finances plantations, it gives preference to siting such Projects on unforested sites or lands already converted (excluding any lands that have been converted in anticipation of the Project). In view of the potential for plantation Projects to introduce invasive species and threaten biodiversity, such Projects must be designed to prevent and mitigate these potential threats to natural habitats.		
	Commercial Harvesting		

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.36/8	8. The Bank may finance commercial harvesting operations only when the Bank has determined, on the basis of the applicable environmental assessment or other relevant information, that the areas affected by the harvesting are not critical forests or related critical natural habitats.	Not Applicable	**N/A**
OP4.36/9	9. To be eligible for Bank financing, industrial-scale commercial harvesting operations must also a) be certified under an independent forest certification system acceptable to the Bank as meeting standards of responsible forest management and use; or b) where a pre-assessment under such an independent forest certification system determines that the operation does not yet meet the requirements of subparagraph 9(a), adhere to a time-bound phased action plan acceptable to the Bank12 for achieving certification to such standards.		**N/A**
OP4.36/10	10. To be acceptable to the Bank, a forest certification system must require: a) compliance with relevant laws; b) recognition of and respect for any legally documented or customary land tenure and use rights as well as the rights of indigenous peoples and workers; c) measures to maintain or enhance sound and effective community relations; d) conservation of biological diversity and ecological functions;		**N/A**

OP 4.11 Physical Cultural Resources

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	Introduction		
OP4.11/1	1. This policy addresses physical cultural resources, which are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community.	No Assessment required	**N/A**
OP4.11/2	2. Physical cultural resources are important as sources of valuable scientific and historical information, as assets for economic and social development, and as integral parts of a people's cultural identity and practices. Objective		**N/A**
OP4.11/3	3. The Bank assists countries to avoid or mitigate adverse impacts on physical cultural resources from development Projects that it finances. The impacts on physical cultural resources resulting from Project activities, including mitigating measures, may not contravene either the borrower's national legislation, or its obligations under relevant international environmental treaties and agreements.		**N/A**
	Physical Cultural Resources within Environmental Assessment		
OP4.11/4	4. The borrower addresses impacts on physical cultural resources in Projects proposed for Bank financing, as an integral part of the environmental assessment (EA) process. The steps elaborated below follow the EA sequence of: screening; developing terms of reference (TORs); collecting baseline data; impact assessment; and formulating mitigating measures and a management plan.	Review physical cultural heritage mitigation and management measures implemented as per ESIA commitments and the ESMPs as assessed in Section 4.	**FC**
OP4.11/5	5. The following Projects are classified during the environmental screening process as Category A or B, and are subject to the provisions of this policy: (a) any Project involving significant excavations, demolition, movement of earth, flooding, or other environmental changes; and (b) any Project located in, or in the vicinity of, a physical cultural resources site recognized by the borrower. Projects specifically designed to support the management or		**FC**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	conservation of physical cultural resources are individually reviewed, and are normally classified as Category A or B.		
OP4.11/6	6. To develop the TORs for the EA, the borrower, in consultation with the Bank, relevant experts, and relevant Project-affected groups, identifies the likely physical cultural resources issues, if any, to be taken into account by the EA. The TORs normally specify that physical cultural resources be included in the baseline data collection phase of the EA.		**FC**
OP4.11/7	7. The borrower identifies physical cultural resources likely to be affected by the Project and assesses the Project's potential impacts on these resources as an integral part of the EA process, in accordance with the Bank's EA requirements.		**FC**
OP4.11/8	8. When the Project is likely to have adverse impacts on physical cultural resources, the borrower identifies appropriate measures for avoiding or mitigating these impacts as part of the EA process. These measures may range from full site protection to selective mitigation, including salvage and documentation, in cases where a portion or all of the physical cultural resources may be lost.		**FC**
OP4.11/9	9. As an integral part of the EA process, the borrower develops a physical cultural resources management plan that includes measures for avoiding or mitigating any adverse impacts on physical cultural resources, provisions for managing chance finds, any necessary measures for strengthening institutional capacity, and a monitoring system to track the progress of these activities. The physical cultural resources management plan is consistent with the country's overall policy framework and national legislation and takes into account institutional capabilities with regard to physical cultural resources.		**FC**
OP4.11/10	10. The Bank reviews, and discusses with the borrower, the findings and recommendations related to the physical cultural resources aspects of the EA, and determines whether they provide an adequate basis for processing the Project for Bank financing.		**FC**
	Consultation		

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.11/11	11. As part of the public consultations required in the EA process, the consultative process for the physical cultural resources component normally includes relevant Project-affected groups, concerned government authorities, and relevant nongovernmental organizations in documenting the presence and significance of physical cultural resources, assessing potential impacts, and exploring avoidance and mitigation options.	Not applicable to IESC assessment of Project implementation phase.	**N/A**
	Disclosure		
OP4.11/12	12. The findings of the physical cultural resources component of the EA are disclosed as part of, and in the same manner as, the EA report. Exceptions to such disclosure would be considered when the borrower, in consultation with the Bank and persons with relevant expertise, determines that disclosure would compromise or jeopardize the safety or integrity of the physical cultural resources involved or would endanger the source of information about the physical cultural resources. In such cases, sensitive information relating to these particular aspects may be omitted from the EA report.		**N/A**
OP4.11/13	Projects in Situations of Urgent Need of Assistance or Capacity Constraints under OP 10.00 13. This policy normally applies to Projects processed under paragraph 11 of OP 10.00, Investment Project Financing. OP/BP 4.01, Environmental Assessment, sets out the application of EA to such Projects. When compliance with any requirement of OP 4.11, Physical Cultural Resources would prevent the effective and timely achievement of the objectives of such a Project, the Bank (subject to the limitations set forth in paragraph 11 of OP 10.00) may exempt the Project from such a requirement, recording the justification for the exemption in the loan documents. However, the Bank requires that any necessary corrective measures be built into either the emergency operation or a future lending operation.		**N/A**
	Projects Involving SubProjects or Financial Intermediaries		
OP4.11/14	14. The physical cultural resources aspects of subProjects financed under Bank Projects are addressed in accordance with the Bank's EA requirements.	Not applicable to IESC assessment of Project implementation phase	**N/A**
	Country Systems		

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.11/15	15. The Bank may decide to use a country's systems to address environmental and social safeguards issues in a Bank-financed Project that affects physical cultural resources. This decision is made in accordance with the requirements of the applicable Bank policy on country systems.	Not applicable to IESC assessment of Project implementation phase	**N/A**
OP4.11/16	16. When the borrower's capacity is inadequate to manage physical cultural resources that may be affected by a Bank-financed Project, the Project may include components to strengthen that capacity.		**N/A**
OP4.11/17	17. Given that the borrower's responsibility for physical cultural resources management extends beyond individual Projects, the Bank may consider broader capacity building activities as part of its overall country assistance program.		**N/A**

OP 4.12 Involuntary Resettlement

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	Introduction		
OP4.12/1	1. Bank experience indicates that involuntary resettlement under development Projects, if unmitigated, often gives rise to severe economic, social, and environmental risks: production systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost. This policy includes safeguards to address and mitigate these impoverishment risks. Policy Objectives	No assessment required	**N/A**
	Impacts Covered		
OP4.12/2	2. Involuntary resettlement may cause severe long-term hardship, impoverishment, and environmental damage unless appropriate measures are carefully planned and carried out. For these reasons, the overall objectives of the Bank's policy on involuntary resettlement are the following: (a) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative Project designs. (b) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the Project to share in Project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.	Review Project implementation of RAP/LRP as assessed in Section 4.	**FC** **See PS5 Discussion**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	(c) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of Project implementation, whichever is higher.		
OP4.12/3	3 . This policy covers direct economic and social impacts that both result from Bank-assisted investment Projects, and are caused by (a) the involuntary taking of land8 resulting in (i) relocation or loss of shelter; (ii) lost of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access9 to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.		
OP4.12/4	4. This policy applies to all components of the Project that result in involuntary resettlement, regardless of the source of financing. It also applies to other activities resulting in involuntary resettlement, that in the judgment of the Bank, are (a) directly and significantly related to the Bank-assisted Project, (b) necessary to achieve its objectives as set forth in the Project documents; and (c) carried out, or planned to be carried out, contemporaneously with the Project.		
OP4.12/5	5. Requests for guidance on the application and scope of this policy should be addressed to the Resettlement Committee (see BP 4.12, para. 7).		
	Required Measures		

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.12/6	6. To address the impacts covered under para. 3 (a) of this policy, the borrower prepares a resettlement plan or a resettlement policy framework (see paras. 25-30) that covers the following: (a) The resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are (i) informed about their options and rights pertaining to resettlement; (ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and (iii) provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the Project. (b) If the impacts include physical relocation, the resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are (i) provided assistance (such as moving allowances) during relocation; and (ii) provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site. (c) Where necessary to achieve the objectives of the policy, the resettlement plan or resettlement policy framework also include measures to ensure that displaced persons are (i) offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living; and (ii) provided with development assistance in addition to compensation measures described in paragraph 6(a); (iii) such as land preparation, credit facilities, training, or job opportunities.	Review Project implementation of RAP/LRP as assessed in Section 4.	**FC** **See IFC S5 discussion**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.12/7	7. In Projects involving involuntary restriction of access to legally designated parks and protected areas (see para. 3(b)), the nature of restrictions, as well as the type of measures necessary to mitigate adverse impacts, is determined with the participation of the displaced persons during the design and implementation of the Project. In such cases, the borrower prepares a process framework acceptable to the Bank, describing the participatory process by which (a) specific components of the Project will be prepared and implemented; (b) the criteria for eligibility of displaced persons will be determined; (c) measures to assist the displaced persons in their efforts to improve their livelihoods, or at least to restore them, in real terms, while maintaining the sustainability of the park or protected area, will be identified; and (d) potential conflicts involving displaced persons will be resolved. The process framework also includes a description of the arrangements for implementing and monitoring the process		**N/A**
OP4.12/8	8. To achieve the objectives of this policy, particular attention is paid to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, indigenous peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.		**N/A**
OP4.12/9	9. Bank experience has shown that resettlement of indigenous peoples with traditional land-based modes of production is particularly complex and may have significant adverse impacts on their identity and cultural survival. For this reason, the Bank satisfies itself that the borrower has explored all viable alternative Project designs to avoid physical displacement of these groups. When it is not feasible to avoid such displacement, preference is given to land-based resettlement strategies for these groups (see para. 11) that are compatible with their cultural preferences and are prepared in consultation with them (see Annex A, para. 11).		**N/A**
OP4.12/10	10. The implementation of resettlement activities is linked to the implementation of the investment component of the Project to ensure that displacement or restriction of access does not occur before necessary measures for resettlement are in place. For impacts covered in para. 3(a) of this policy, these measures include provision of		**FC**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	compensation and of other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, taking of land and related assets may take place only after compensation has been paid and, where applicable, resettlement sites and moving allowances have been provided to the displaced persons. For impacts covered in para. 3(b) of this policy, the measures to assist the displaced persons are implemented in accordance with the plan of action as part of the Project (see para. 30).		**See IFC S5 discussion**
OP4.12/11	11. Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. These strategies may include resettlement on public land (see footnote 1 above), or on private land acquired or purchased for resettlement. Whenever replacement land is offered, resettlers are provided with land for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the land taken. If land is not the preferred option of the displaced persons, the provision of land would adversely affect the sustainability of a park or protected area, or sufficient land is not available at a reasonable price, non-land-based FCoptions built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost. The lack of adequate land must be demonstrated and documented to the satisfaction of the Bank.		**FC** **See IFC S5 discussion**
OP4.12/12	12. Payment of cash compensation for lost assets may be appropriate where (a) livelihoods are land-based but the land taken for the Project is a small fraction of the affected asset and the residual is economically viable; (b) active markets for land, housing, and labor exist, displaced persons use such markets, and there is sufficient supply of land and housing; or (c) livelihoods are not land-based. Cash compensation levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets.		**FC** **See IFC S5 discussion**
OP4.12/13	13. For impacts covered under para. 3(a) of this policy, the Bank also requires the following: (a) Displaced persons and their communities, and any host communities receiving them, are provided timely and relevant information, consulted on resettlement options, and offered opportunities to participate in planning, implementing, and monitoring resettlement. Appropriate and accessible grievance mechanisms are established for these groups.		**FC** **See IFC S5 discussion**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	(b) In new resettlement sites or host communities, infrastructure and public services are provided as necessary to improve, restore, or maintain accessibility and levels of service for the displaced persons and host communities. Alternative or similar resources are provided to compensate for the loss of access to community resources (such as fishing areas, grazing areas, fuel, or fodder). (c) Patterns of community organization appropriate to the new circumstances are based on choices made by the displaced persons. To the extent possible, the existing social and cultural institutions of resettlers and any host communities are preserved and resettlers' preferences with respect to relocating in preexisting communities and groups are honored.		
	Eligibility for Benefits		
OP4.12/14	14. Upon identification of the need for involuntary resettlement in a Project, the borrower carries out a census to identify the persons who will be affected by the Project (see the Annex A, para. 6(a)), to determine who will be eligible for assistance, and to discourage inflow of people ineligible for assistance. The borrower also develops a procedure, satisfactory to the Bank, for establishing the criteria by which displaced persons will be deemed eligible for compensation and other resettlement assistance. The procedure includes provisions for meaningful consultations with affected persons and communities, local authorities, and, as appropriate, nongovernmental organizations (NGOs), and it specifies grievance mechanisms.	Review Project implementation of RAP/LRP as assessed in Section 4.	**FC** **See IFC S5 discussion**
OP4,12/15	15. Criteria for Eligibility. Displaced persons may be classified in one of the following three groups: (a) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country); (b) those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets--provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan (see Annex A, para. 7(f)); and (c) those who have no recognizable legal right or claim to the land they are occupying.		**FC** **See IFC S5 discussion**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.12/16	16. Persons covered under para. 15(a) and (b) are provided compensation for the land they lose, and other assistance in accordance with para. 6. Persons covered under para. 15(c) are provided resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary, to achieve the objectives set out in this policy, if they occupy the Project area prior to a cut-off date established by the borrower and acceptable to the Bank. Persons who encroach on the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance. All persons included in para. 15(a), (b), or (c) are provided compensation for loss of assets other than land.		**FC** **See IFC S5 discussion**
	<u>Resettlement Planning, Implementation, and Monitoring</u>		
OP4.12/17	17. To achieve the objectives of this policy, different planning instruments are used, depending on the type of Project: (a) a resettlement plan or abbreviated resettlement plan is required for all operations that entail involuntary resettlement unless otherwise specified (see para. 25 and Annex A); (b) a resettlement policy framework is required for operations referred to in paras. 26-30 that may entail involuntary resettlement, unless otherwise specified (see Annex A; and (c) a process framework is prepared for Projects involving restriction of access in accordance with para. 3(b) (see para. 31).	Review Project implementation of RAP/LRP as assessed in Section 4.	**FC** **See IFC S5 discussion**
OP4.12/18	18. The borrower is responsible for preparing, implementing, and monitoring a resettlement plan, a resettlement policy framework, or a process framework (the "resettlement instruments"), as appropriate, that conform to this policy. The resettlement instrument presents a strategy for achieving the objectives of the policy and covers all aspects of the proposed resettlement. Borrower commitment to, and capacity for, undertaking successful resettlement is a key determinant of Bank involvement in a Project.		**FC** **See IFC S5 discussion**
OP4.12/19	19. Resettlement planning includes early screening, scoping of key issues, the choice of resettlement instrument, and the information required to prepare the resettlement component or subcomponent. The scope and level of detail of the resettlement instruments vary with the magnitude and complexity of resettlement. In preparing the resettlement component, the borrower draws on appropriate social, technical, and legal expertise		**FC** **See IFC S5 discussion**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	and on relevant community-based organizations and NGOs. The borrower informs potentially displaced persons at an early stage about the resettlement aspects of the Project and takes their views into account in Project design.		
OP4.12/20	20. The full costs of resettlement activities necessary to achieve the objectives of the Project are included in the total costs of the Project. The costs of resettlement, like the costs of other Project activities, are treated as a charge against the economic benefits of the Project; and any net benefits to resettlers (as compared to the "without-Project" circumstances) are added to the benefits stream of the Project. Resettlement components or free-standing resettlement Projects need not be economically viable on their own, but they should be cost-effective.		**FC** **See IFC S5 discussion**
OP4.12/21	21. The borrower ensures that the Project Implementation Plan is fully consistent with the resettlement instrument.		**FC** **See IFC S5 discussion**
OP4.12/22	22. As a condition of appraisal of Projects involving resettlement, the borrower provides the Bank with the relevant draft resettlement instrument which conforms to this policy, and makes it available at a place accessible to displaced persons and local NGOs, in a form, manner, and language that are understandable to them. Once the Bank accepts this instrument as providing an adequate basis for Project appraisal, the Bank makes it available to the public through its InfoShop. After the Bank has approved the final resettlement instrument, the Bank and the borrower disclose it again in the same manner.		**FC** **See IFC S5 discussion**
OP4.12/23	23. The borrower's obligations to carry out the resettlement instrument and to keep the Bank informed of implementation progress are provided for in the legal agreements for the Project.		**FC** **See IFC S5 discussion**
OP4.12/24	24. The borrower is responsible for adequate monitoring and evaluation of the activities set forth in the resettlement instrument. The Bank regularly supervises resettlement implementation to determine compliance with the resettlement instrument. Upon completion of the Project, the borrower undertakes an assessment to determine whether the objectives of the resettlement instrument have been achieved. The assessment takes		**FC** **See IFC S5 discussion**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
	into account the baseline conditions and the results of resettlement monitoring. If the assessment reveals that these objectives may not be realized, the borrower should propose follow-up measures that may serve as the basis for continued Bank supervision, as the Bank deems appropriate (see also BP 4.12, para. 16).		
	Resettlement Instruments		
OP4.12/25	Resettlement Plan 25. A draft resettlement plan that conforms to this policy is a condition of appraisal (see Annex A, para. 2-21) for Projects referred to in para. 17(a) above. However, where impacts on the entire displaced population are minor,or fewer than 200 people are displaced, an abbreviated resettlement plan may be agreed with the borrower (see Annex A, para. 22). The information disclosure procedures set forth in para. 22 apply.	Not applicable: RAP/LRP are already developed and implemented	**FC** **See IFC S5 discussion**
OP4.12/26	Resettlement Policy Framework 26. For sector investment operations that may involve involuntary resettlement, the Bank requires that the Project implementing agency screen subProjects to be financed by the Bank to ensure their consistency with this OP. For these operations, the borrower submits, prior to appraisal, a resettlement policy framework that conforms to this policy (see Annex A, paras. 23-25). The framework also estimates, to the extent feasible, the total population to be displaced and the overall resettlement costs.		**FC** **See IFC S5 discussion**
OP4.12/27	27. For financial intermediary operations that may involve involuntary resettlement, the Bank requires that the financial intermediary (FI) screen subProjects to be financed by the Bank to ensure their consistency with this OP. For these operations, the Bank requires that before appraisal the borrower or the FI submit to the Bank a resettlement policy framework conforming to this policy (see Annex A, paras. 23-25). In addition, the framework includes an assessment of the institutional capacity and procedures of each of the FIs that will be responsible for subProject financing. When, in the assessment of the Bank, no resettlement is envisaged in the subProjects to be financed by the FI, a resettlement policy framework is not required. Instead, the legal agreements specify the obligation of the FIs to obtain from the potential subborrowers a resettlement plan consistent with this policy if a subProject gives rise to resettlement. For all subProjects involving resettlement, the resettlement plan is provided to the Bank for approval before the subProject is accepted for Bank financing.		**N/A**

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.12/28	28. For other Bank-assisted Project with multiple subProjects27 that may involve involuntary resettlement, the Bank requires that a draft resettlement plan conforming to this policy be submitted to the Bank before appraisal of the Project unless, because of the nature and design of the Project or of a specific subProject or subProjects (a) the zone of impact of subProjects cannot be determined, or (b) the zone of impact is known but precise sitting alignments cannot be determined. In such cases, the borrower submits a resettlement policy framework consistent with this policy prior to appraisal (see Annex A, paras. 23-25). For other subProjects that do not fall within the above criteria, a resettlement plan conforming to this policy is required prior to appraisal.		**N/A**
OP4.12/29	29. For each subProject included in a Project described in para. 26, 27, or 28 that may involve resettlement, the Bank requires that a satisfactory resettlement plan or an abbreviated resettlement plan that is consistent with the provisions of the policy framework be submitted to the Bank for approval before the subProject is accepted for Bank financing.		**N/A**
OP4.12/30	30. For Projects described in paras. 26-28 above, the Bank may agree, in writing, that subProject resettlement plans may be approved by the Project implementing agency or a responsible government agency or financial intermediary without prior Bank review, if that agency has demonstrated adequate institutional capacity to review resettlement plans and ensure their consistency with this policy. Any such delegation, and appropriate remedies for the entity's approval of resettlement plans found not to be in compliance with Bank policy, are provided for in the legal agreements for the Project. In all such cases, implementation of the resettlement plans is subject to ex post review by the Bank.		**N/A**
OP4.12/31	Process Framework 31. For Projects involving restriction of access in accordance with para. 3(b) above, the borrower provides the Bank with a draft process framework that conforms to the relevant provisions of this policy as a condition of appraisal. In addition, during Project implementation and before to enforcing of the restriction, the borrower prepares a plan of action, acceptable to the Bank, describing the specific measures to be undertaken to assist the displaced persons and the arrangements for their implementation. The plan of action could take the form of a natural resources management plan prepared for the Project.		**N/A**
	<u>Assistance to the Borrower</u>		

Reference / Paragraph No.	Compliance Requirement	Assessment Methodology for IESC	Compliance Category
OP4.12/32	32. In furtherance of the objectives of this policy, the Bank may at a borrower's request support the borrower and other concerned entities by providing (a) assistance to assess and strengthen resettlement policies, strategies, legal frameworks, and specific plans at a country, regional, or sectoral level; (b) financing of technical assistance to strengthen the capacities of agencies responsible for resettlement, or of affected people to participate more effectively in resettlement operations; (c) financing of technical assistance for developing resettlement policies, strategies, and specific plans, and for implementation, monitoring, and evaluation of resettlement activities; and (d) financing of the investment costs of resettlement.	Not applicable: RAP/LRP are already developed and implemented	**N/A**
OP4.12/33	33. The Bank may finance either a component of the main investment causing displacement and requiring resettlement, or a free-standing resettlement Project with appropriate cross-conditionalities, processed and implemented in parallel with the investment that causes the displacement. The Bank may finance resettlement even though it is not financing the main investment that makes resettlement necessary		**N/A**